© 2015 José D. De León-Alejandro

ORCHESTRATING ECONOMIC DEVELOPMENT: EXPLORING INTERORGANIZATIONAL NETWORKS IN THE CHICAGO METRO AREA

BY

JOSE D. DE LEON ALEJANDRO

DISSERTATION

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy in Geography
in the Graduate College of the
University of Illinois at Urbana-Champaign, 2015

Urbana, Illinois

Doctoral Committee:

Professor Geoffrey J. D. Hewings, Chair
Professor Sara McLafferty
Associate Professor Julie Cidell
Professor Edward Feser

ABSTRACT

Intersectoral, interorganizational, and intergovernmental cooperation is becoming a more common practice in economic development, breaking political boundaries to establish networks across organizations with similar economic structures, assets and opportunities. This dissertation used a survey research method approach to analyze intergovernmental collaboration in the Chicago metro area by exploring the social network structure of cooperation, the conditions under which local governments cooperate and the resulting outcomes of cooperation. The results suggests that communities in the Chicago metro area are spatially aware of the roles of neighboring communities in the socio-economic structure of the region, as well as the role that each community plays within the region. However, the results also reveal the presence of a sparse network between communities; primarily because intergovernmental networking is not dense in Chicago. A logistic regression model was used to test the extent to which a combination of community characteristics and intergovernmental network resources influenced voluntary cooperation. The findings suggest that some of the factors influencing cooperation include collaborative norms and trust, network centralization, the competitive development activity of local governments, and whether the leading development agency is a public-private entity. Finally, collaboration was found to be a great resource for building consensus; making the region socio-economically stronger, more efficient; and facilitating experimentation, learning and evolution in economic development. The current study aims to explore and provide a better understanding of the interorganizational efforts in the Chicago metro area, a region where research has suggested significant levels of independence and limited intraregional intergovernmental cooperation.

To my wife, daughter, and son for being understanding and supportive when I needed to sacrifice our time together; and when developing this study provoked sudden changes of humor in me that affects them in one way or another. To my mother, maternal grandparents, family and friends for believing in me and giving me the inspiration to dedicate my time and energy to be success in graduate school and get the appropriate training to help others in public policy and economic development issues. To all with love!

ACKNOWLEDGEMENTS

I would like to thank my research advisor, Dr. Geoffrey J. D. Hewings, and doctoral committee (Dr. Sara McLafferty, Dr. Julie Cidell and Dr. Edward Feser) for their invaluable guidance and mentorship and their unconditional support throughout my academic progress and the research process. Thanks for your words of wisdom during hard times and for believing in my potential! I would also like to thank my wife, Zully, my daughter, Génesis, and my son, Dariel, for their support and understanding when I had to sacrifice time with them to work on my graduate studies, teaching and research. It finally paid off! Thanks to all the mayors, planners, development directors and all the staff that agreed to participate in this study, and some of them that gave more information than I requested for the success of this study. Finally, thanks to many of my friends and colleagues who provided emotional support and helped normalize my experience during graduate school, especially the Regional Economic Applications Laboratory (REAL).

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

DEFINITION OF TERMS

Cooperative norms additive index: is based on 7 questions with a 5 points answer scale, with 7 being the lowest and 35 the highest, indicating the extent to which parties usually act in a collaborative fashion because of the existence of certain levels of trust, commitment, and reciprocity (Hawkins, 2007; Olberding, 2002).

Joint Venture: for economic development is meant by both formal and informal cooperative agreements established between local governments of 2 or more communities that are intended to encourage development and improve economic and fiscal conditions.

Lieberson's Index of Diversity: is a probability of encountering consecutive individuals from the same ethnicity, using replacement sampling.

Network Betweenness: is an indicator of a node's centrality in a network. It is equal to the number of shortest paths from all vertices to all others that pass through that node. A node with high betweenness has great influence over what flows -- and does not -- in the network.

Network Centralization: is whether the network is dominated by one or a few very central nodes, meaning a very dependable network; or it has no single points of failure, meaning that many nodes or links can fail while allowing the remaining nodes to still reach each other over other network paths.

Network closeness: is a measure of the degree to which an individual is near all other individuals in a network. It is the inverse of the sum of the shortest distances between each node and every other node in the network.

Network Cohesion: means that a social network contains many ties; more ties between people yield a tighter structure, which is, presumably, more cohesive.

Network Degree: refers to the number of ties a node has to other nodes.

Network Density: is the number of lines in a simple network, expressed as a proportion of the maximum possible number of lines.

Network Reciprocity: directed dyadic relationships where ties are reciprocated; A gives to B, and B gives to A.

Network Size: refers to the number of nodes or edges in a network.

Network Transitivity: gives the density of transitive triples in a network; three vertices A, B , C taken from a directed graph are transitive if whenever vertex A is connected to vertex B and vertex B is connected to vertex C then vertex A is connected to vertex C.

Transaction costs: are the costs of negotiating, monitoring and enforcing agreements between parts in an economic transaction. These costs include those incurred in determining that the required good is available on the market, which has the lowest price; the costs required to come to an acceptable agreement with the other party to the transaction, drawing up an appropriate contract and so on; and the costs of making sure the other party sticks to the terms of the contract, and taking appropriate action (often through the legal system) if this turns out not to be the case.

Spatial awareness index: measures the ability to be aware of oneself in space through an index based on 7 questions with a 5 points answer scale, with 7 being the lowest and 35 the highest.

CHAPTER 1 INTRODUCTION

The Chicago Tri-State metro-region constitutes one of the largest metropolitan economies among the metropolitan areas encompassed by the Organisation for Economic Co-operation and Development (OECD). However, the OECD (2012) warned us that Chicago is at a tipping point, because despite its economic strengths, it faces considerable challenges to compete with the best in the world economy. The problem is that the region is converging on the technological frontier, slowing down its growth. The keys for getting into the next level is state-wide collaboration that ends up in policy advances, especially in the encouragement of innovation-driven growth based on knowledge and skills (OECD, 2012).

In regards to collaboration, the OECD (2012) is crystal clear about the issue of functional regions not collaborating to advance policies on innovation, technology, inter-state integrated transportation planning, and other third wave policies. There is no policy conditionality or financial incentives to encourage cooperation among public authorities, which is crucial to articulate common region-wide goals and implement region-wide strategic plans to achieve them. Key institutional actors across the tri-state region, including federal funders, state and municipal governments, and firms and the academia need to improve collaboration among themselves and between themselves (OECD, 2012).

The OECD (2012) Chicago study is the frame of this dissertation. OECD wants to promote greater cooperation across the 3 states that form the Greater Chicago region, but they do not focus on intra-state connections and the nature of those connections. They first suggested that the region needs to remove barriers to more systematic inter-state collaboration aimed at enhancing the region's economic development and growth capacity, but they do not dig deeper into what the barriers are. Then, they claimed that although Chicago's legal mandates are geographically limited, there is no barrier to their discussing and collaborating with each other to ensure coherence at the regional level.

This dissertation examines the social network structure of collaboration, the conditions under which local governments collaborate, the barriers of collaboration, and the outcomes of collaboration in the Chicago metro area under the jurisdiction of the Chicago Metropolitan Agency of Planning (CMAP),[1] including the 284 municipalities within this jurisdiction. Not only is this dissertation exploring collaboration among communities in Chicago but also how aware development officials are of their dependence on nearby communities and how that affects collaboration. In addition, among those communities that engage in collaborative practices, this dissertation investigates how these practices translate into better development outcomes.

Research in regional economic development has focused on examining comparative, competitive, and cooperative advantage approaches from multidisciplinary perspectives (Gordon, 2007; Hewings, Feser and Poole, 2009; Malizia and Feser, 1999; McGuire, 2000). Since the 1960s, there have been shifts in development strategies going through comparative, competitive and cooperative approaches and more recently, a blend of all three in multi-sector strategic planning environments (Malizia and Feser, 1999). Related literature suggests that intersectoral, interorganizational, and intergovernmental collaboration is inevitable due to the way local authorities and policy responsibilities are divided or partitioned (Feiock, 2004, 2005, 2008; Hawkins, 2007; McGuire, 2000). For instance, Hewings and colleagues (2009) suggested a complex web of integrated approaches to regional development, comprising of spatial interdependence between a vast array of federal, state, and local government agencies. Therefore, one government's decisions on specific functional areas are likely to impact other governments and the way they function.

---

[1] CMAP is the official regional planning organization for the northeastern Illinois counties of Cook, DuPage, Kane, Kendall, Lake, McHenry, and Will.

Another factor facilitating the shift towards cooperation is the changing demographic composition of working households (dominated by 2 wage-earners) – so even if communities ignore the interdependence, worker-consumers have already embraced it. (Hewings *et al.*, 1998; Hewings, Okuyama and Sonis, 2001; Hewings and Parr, 2007). Unfortunately, some local development officials may not be fully aware of what is happening in nearby areas within their regions due to a lack of "regional perspective". (OECD, 2012). For example, how many of their residents work somewhere else or what percentage of the local labor force is made up of non-residents? Becoming aware of different levels of interdependence is very important not only for competition but for collaborative efforts and effective institutional arrangements (OECD, 2012).

Current local economic development efforts encourages that practitioners coordinate intersectoral, interorganizational, and intergovernmental development and formulate more effective policy strategies (McGuire, 2000). Collaboration maximizes benefits for the neighboring communities by nurturing their respective strengths, combines those strengths and uses them together to maximize gains and provide a better environment for business and quality of life. If worker-consumers are already exploiting interdependence, then it makes competitiveness less practical in facilitating economic development. If policy makers or development officials are aware of how dependent their community is on other communities, they will be more willing to cooperate (Hawkins, 2007; McGuire, 2000).

Research on cooperative efforts in local economic development has been primarily embedded within the Institutional Collective Action (ICA) framework. The ICA proposes that there is a set of institutional units working collectively to achieve shared policy objectives and to solve problems that cannot be effectively achieved by single organizations (Feiock, 2005, 2007; Hawkins, 2007; McGuire, 2000). This framework suggests the idea of bilateral and multilateral collaboration. Bilateral refers to ties between two communities or

entities. Multilateral refers to relationships of more than two. These are a function of transaction costs (a function of the characteristics of services), characteristics of communities, political institution, and policy networks (Feiock, 2004, 2007, 2008). This framework is useful to identify and examine the factors that facilitate collaboration. From a cost-benefit approach, collaboration is likely to occur when benefits exceed transaction costs of negotiating, monitoring, and enforcing agreement.

The policy networks portion of the function of the ICA framework can be further explained from a Social Capital framework. Social Capital is the process where norms and networks facilitate collective action for mutual benefit. It focuses on who knows whom (social networks), the character of these networks, the strength of the ties in the network, and the levels of trust and reciprocity (Knack, 2001; Putnam, 1995; Sander and Lowney, 2006). This framework helps to better understand and explain expected networks in the Chicago area, as well as their characteristics and impact on collaboration and development.

The shift towards collaboration is dramatically impacting traditional economic development initiatives and pushing development minds to think outside the box. This dissertation digs deeper into these practices. Political boundaries everywhere are being crossed to identify surrounding areas with similar economic structures, assets, and opportunities. While collaboration is becoming a more popular practice in the analysis of economic development across the nation, including the Midwest, the impact of this shift in the Chicago metro area has been largely unexplored. The OECD (2012) calls for more collaboration but does not provide more insight on factors affecting collaboration.

Collaboration research has primarily focused on cities in Georgia, Florida, and Michigan (Feiock, 2008; Hawkins 2007). This research highlighted the importance of identifying the conditions that positively or negatively influence collaboration among local governments given the fragmented structure of metropolitan areas. However, Chicago has not been

evaluated under this framework, though Gordon (2007) did a statewide research on the collaborative perceptions of decision makers in economic development in Illinois. Gordon's conclusions suggest that cities in Illinois do cooperate, understand the benefits of collaboration and their willingness to engage in more collaborative efforts is increasing. However, competition is still a big problem besides metropolitan fragmentation (division into too many jurisdictions) and transaction costs.

The rationale for focusing on Chicago is use the ICA framework as applied by Hawkins (2007) to complement the OECD (2012) study by understanding the collaboration setting in Chicago. Uncertainties and challenges related to the analysis of Chicago's transition and modernization create the need to investigate the current characteristics of economic development in this area. Macroeconomic factors, technology, human capital, infrastructure, transportation, and cultural and political shifts seem to influence this transition, mainly caused by demographic changes (Chicago Urban League, 2008). Moreover, CMAP is creating various economic development programs (that involve intraregional collaboration) expected to be implemented over the next 30 years. Therefore, the scope and timing of this dissertation is very appropriate.

1.1 Objectives

The key objectives of this dissertation are to:

1. Study the level of awareness of spatial interdependence and interaction among economic development practitioners in the metro area.
2. Explore any existing network or set of networks related to collaborative activities between practitioners within the metro area.
3. Identify and test significant factors influencing the collaborative setting and explain conditions under which cooperative efforts are initiated.
4. Investigate how collaboration translates into development outcomes; i.e., the impact of collaborative activities in facilitating capacity and consensus building.

1.2 Research Questions and Hypotheses

Table 1 displays the research questions guiding this study and the expected outcomes or hypotheses.

Table 1: Research Questions and Hypotheses

Number	*Research Questions*	*Hypotheses*
1	Do communities engage in collaborative activities? If so, how complex are these social relationships? What is the network structure of these collaborations? How do cooperative norms strengthen these networks?	Most of the communities in the Chicago metro area are expected to engage in collaborative activities. These social relationships are expected to result in complex and dense networks. In addition, cooperative norms such as trust, reciprocity, and commitment are expected to strengthen these networks.
2	What are the factors explaining the creation of voluntary cooperative arrangements among local governments in the Chicago metro area?	Community and metro area characteristics, local political institutions, and intergovernmental networks are factors that have significantly impact the likelihood of collaboration among local governments. It is expected that collaboration would be positively related to the following variables: poverty, manufacture jobs, development policies, strategic plans, public-private partnership, full-time lead official, increasing budget, high spatial awareness level, being an employment center, strong networks, and demand-side policies.
3	What is the awareness level of economic development practitioners about spatial interdependence and interaction among the communities in the Chicago metro area?	The region is fairly spatially aware and it is expected that there will be significant differences between the communities that cooperate and the ones that do not. Besides, spatial autocorrelation in the responses is expected among those closer to the city of Chicago and located in the Northeast being more aware.
4	Are collaborative activities facilitating capacity and consensus building in the local economic development process? If so, how is everyone benefiting?	Collaborating activities are expected to facilitate capacity and consensus building in the local economic development process. Those with denser and more centralized networks are expected to benefit the most.

1.3 Contributions, Implications and Limitations

The Chicago metro area has traditionally been characterized by a significant level of independence among its communities. A major contribution of this dissertation is that it explored intraregional, interorganizational, and intergovernmental collaboration efforts in this metro area, which has been largely neglected in the literature of collaboration. Also, this study goes beyond the ICA framework by incorporating spatial components, much deeper analysis and social network discussions. Further, this study provides additional narratives to explain the impact of collaboration on economic development outcomes and the findings have the potential to influence policy making.

Some limitations were taken into consideration during the data analysis. First, data was obtained through a self-reported survey. Survey research can seldom deal with "context" and there are problems of dealing with links with non-respondents. Another limitation is a low response rate, but it is consistent with most of the studies with similar scopes. Also, participants' responses may be compromised in extent and details by any disclosure policy from their agencies. Moreover, intentional deception, poor memory, or misunderstanding of the question can all contribute to inaccuracies in the data.

1.4 Dissertation Structure

In the following chapter, a literature review is provided discussing the theories and frameworks (e.g., ICA and Social Capital) guiding this study, as well as relevant research and future directions. Chapter 3 describes the methods used in this dissertation, including the unit of analysis, data collection process, survey instruments, and analysis. Chapter 4 presents the results from the statistical analyses, as well as the descriptions and observations of the municipalities represented in the study. Finally, Chapter 5 synthetizes and interprets the findings, along with a discussion of the conclusions and opportunities for future research.

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction

One of the focal points of President Obama in his State of Union address (Obama, 2011), was the role of collaboration in economic development. Traditionally, the two major goals of local economic development efforts include building quality jobs and diversifying the local employment base (Blakely and Green-Leigh, 2009; Blakely and Bradshaw, 2002). However, policies and strategies to pursue development and growth have to be congruent and consistent with this collaborative advantage era (Obama, 2011; Malizia and Feser, 1999).

The advocacy for collaboration has roots in a wide range of empirical work that includes social capital and collaborative policy making. Furthermore, interdependency between regions at different scales is linked and sustained by different socio-economic processes. This review of literature discusses the definition of development and the transition in local economic development policy, policy adoptions, and the role of developers and practitioners. In addition, an overview of social capital, research on regional interdependency and local government collaboration approaches and conceptualization are reviewed. Finally, the literature review discusses the theoretical frameworks and a discussion of how this work will fill existing gaps in the literature.

2.2 Definition of development

The definition of economic development is complex and lacks consensus, as it varies depending on policy or research purposes and approaches (Peters and Fisher, 2004; Mathur, 1999; Flammang, 1979). There are two main barriers for agreeing on a more comprehensive definition. One is the differentiation between economic growth and economic development, and understanding their meanings and implications (Flammang, 1979, 1990). The other barrier is the scope of the definition. Understanding these barriers and how they operate in practitioners' perceptions of development by may be important in

understanding policy decisions, like engaging in collaborative practices (Mielke and Schetter, 2007; Abernethy, 1999).

Although, both development and growth are often used to define or explain the same thing (Flammang, 1979), these terms are not identical (Nafziger, 2006). Research has argued that development is more complex than growth (Hosseini, 2003). Flammang (1979) reviewed a wide selection of diverging views about both development and growth, suggesting that in the short run, they are competitive, but in the long run they are complementary. In a more formal definition, Nafziger (2006) explained that economic growth "refers to the increases in a country's production or income per capita (p.15)," while economic development "refers to economic growth accompanied by changes in output distribution and economic structure (p.15)." Basically, growth is necessary but not sufficient for organic and sustainable development (Nafziger, 2006). Growth is only one subset of the complex concept of development (Hosseini, 2003; Sen, 1983, 1988). Flammang (1990) agrees with this statement and adds that growth is more like "niche filling," whereas development is "niche changing," a broader concept that keeps changing over time, impacted by different processes including growth. Accordingly, growth may be seen to involve short to medium term policy strategies, whereas development may imply more long term and broader views.

The U.S. Economic Development Administration defines economic development as a process to enhance "the factors of productive capacity – labor, capital, and technology – of a national, state or local economy (U.S. Department of Commerce, 2003)." Malizia (1994) refers to economic development as "the on-going process of creating wealth in which producers deploy scarce human, financial, capital, physical and natural resources to produce goods and services that consumers want and are willing to pay for (p.84)." Pages and Poole (2003) tie economic development with business and jobs creation, the attraction

and creation of new companies, and the retention and expansion of existing companies. In this process, economic development agencies become entrepreneurship avenues. Among the strategies for this kind of development approach are regulatory and permitting policies, tax and incentive policies, non-financial assistance, and direct financial assistance (Pages and Poole, 2003). Currently the most popular avenue to achieve development as defined above is education, technology and creativity (see Obama, 2011).

Alternatively, the field of community economic development offers new meanings and strategies for economic development focusing on the improvement of the economic well-being of low income and marginalized struggling communities. Thus, the definition of development has to do with a participatory development approach. The objective is to increase people's control over their resources and economic lives, and to build community power and decision-making capacities. Under this spectrum, different local economic development concepts and strategies can be seen, such community and cooperative business development (Zeuli and Radel, 2005); self-employment and micro-businesses; community and micro (revolving) loan funds and credit unions; bartering and local currencies (Diochon, 2003; Malveaux, 1990; Pinilla, 1995; Rodriguez, 1995; Villalobos, 1995); diverse economies (Gibson et al., 2004; Gibson-Graham, 2006; Leyshon, 2005; Smith, 2006); and asset-based community economic development (Cameron, 2003; Mathie and Cunningham, 2003; Kretzmann and Mcknight, 1993).

Top-down and bottom-up approaches are embedded in any definition of development. The most important aspect of this review is to be sensitive and open-minded about the diversity and complexity of the definition of development. This may impact the data analysis process in this study, especially in maintaining a clear and well-balanced perspective on the potential issues. The working definition of development used in this study is to increase a region's ability to satisfy its own socioeconomic needs.

2.3 The evolution of economic development in the U.S.

Table 2 summarizes the evolution of state and local economic development policy in the U.S. with the three waves of economic development and their historic context. This evolution can be traced since the 1930s, where the focus of the Federal Government was national planning, a very top-down development approach (Eisinger, 1988). The Federal Government policy objectives have changed since the 1930s, focusing later on the welfare state, then in restoring competitiveness and lately in reinforcing global trade. After the Great Depression, economic development processes began to change with the rise of regionalism and new challenges of poverty and relief (Malizia and Feser, 1999). Late in the 1930s, the aim for balancing agriculture with industry began to grow and during the 1940s, the first wave of economic development arose at the same time of the World War II, with subsequent repercussions in the economic development process of the U.S (Bradshaw and Blakely, 1999). That was the era of acquisition, with policies oriented toward place marketing, prospecting, incentives, exports, tourists, retirees, and infrastructure.

Bradshaw and Blakely (1999) claim that industrial attraction efforts, or smokestack chasing of the first wave, gave way to new strategies, according to most analysts of state policy. The first wave was dominated by programs designed specifically to attract footloose firms from old industrial areas to growing regions, such as the South or West. The typical tools of the first wave were subsidized loans or direct payments to firms for relocation expenses, tax reductions, subsidies applied to the cost of plant facilities or utilities, and competitive and expensive industrial recruitment programs.

By the middle of the 1940s, there was a post-war housing boom and in the late 1940s, the government began to recognize the issue of urban decay and it released the Housing Act (1949) to open the doors for urban renewal and downtown development coalitions (Eisinger, 1988). By the 1950s, the Federal focus began to change toward a welfare state

Table 2. Summary of the evolution of state and local economic development policy in the U.S.

ED Wave	*Focus*	*Origin*	*Methods*	*Historical Context*	*Problems*
First Wave	Business attraction; "Smokestack Chasing"	Attraction models in Southern states	Discount location assets to attract outside businesses to create jobs for local unemployed people; Community base equals physical resources; Establish a positive business climate by lowering costs of doing business through loans, tax cuts, no unions, free land/infrastructure	1950s to early 1980s. World War II; Era of acquisition, with policies oriented toward place marketing, prospecting, incentives, exports, tourists, retirees, and infrastructure; Lack of industry in the South; Fordist social contracts; A broadly growing national economy	Zero-sum game; Major public giveaways; Long-term ineffectiveness; "But for" question
Second Wave	Retain, expand and grow local businesses; Grow a strong local economy	Internal economy, high businesses and high technology	Reduce taxes and provide incentives to all business, especially small/local ones; Training programs; Business incubators; High-tech development; Local Entrepreneurship; Community base equals social and physical resources	Early 1980s to early 1990s. Reduction of federal role; Local focus began to grow with neighborhood reinvestment policies; Most new jobs created in small businesses; Emergence of high technology	Market failures in small businesses; Apathy for this kind of development; Higher risk public interventions; Still a business-centered approach
Third Wave	The Entrepreneurial City	Global economy: the need to link capital, human capital and technology	Building regional collaboration; Create context for better relations among firms; Workforce training directed to build businesses; Community base equals leadership and development of quality environment; Public-private partnership; economic development through quasi-public agencies; Ad-hoc market-based initiatives	Early 1990s to present. New Federalism equals less Federal intervention; Globalization; Human Capital; Increase of the practice of economic development as a field	Still based on business-centered approach, using market criteria, not holistic criteria to define success and it is still based in competition with other places

Based on Blakely and Bradshaw (2002), Bradshaw and Blakely (1999), Eisinger (1998)

policy orientation and during the decade of activism, the 1960s, the history of economic development in U.S. saw the establishment of the so-called Great Society (Malizia and Feser, 1999). This period saw the rise of Central Business Districts (as promotional organizations), the Economic Development Administration and the Appalachian Regional Commission, among other organizations. It also saw the release of assistance programs to attack poverty such as the Cooperative Assistance Fund (Ford, private corporations) in 1968 as a legal vehicle for social investment; and finally growth poles (Malizia and Feser, 1999). In the late 1960s, the new federalism began under Nixon's administration (Markusen, 1994). This new federalism was a system that directed money and power away from the federal bureaucracy and toward states and municipalities. The rationale was to respond more efficiently to the needs of the people.

The new federalism dominated the decade of the 1970s too, though that decade saw a reduction of federal role in housing and the simultaneous creation of the Home Mortgage Disclosure Act in 1975 (Malizia and Feser, 1999; Markusen, 1994). Late in the 1970s, a retrenchment, local focus began to grow with neighborhood reinvestment policies such as the Community Reinvestment Act in 1977 (Bradshaw and Blakely, 1999). Basically, the era of the 1960s and 1970s worked towards a comparative advantage focus of economic planning strategy.

The beginning of a second wave was seen during the late 1970s and early 1980s with a focus on competitiveness. Policies towards small firms, education/training, universities, science and technology, venture capital and incubators began to be popular. Monetarism thoughts shifted the focus of economic policy to value-adding strategies to seek growth from within, from a lighter top-down to a more bottom-up development approach (Bradshaw and Blakely, 1999).

Bradshaw and Blakely (1999) explain that by the early 1980s, states began operating many second-wave incentives that shifted focus from attracting out-of-state firms to retaining and expanding existing firms. Second-wave strategies created programs to increase capital for small and medium-size businesses, accelerate technology transfer, or to expand workforce-training

programs (Ross and Friedman (1990), as cited in Bradshaw and Blakely, 1999). Cities that adopted second-wave strategies were characterized by a strong investment and entrepreneurial approach (Clarke and Gaile (1992), as cited in Bradshaw and Blakely, 1999).

During the 1980s, the U.S. conducted economic development policies also in the awareness of the rise of Japan as an economic power (Malizia and Feser, 1999). That decade saw a contraction in intergovernmental grants, but many tax reform oriented policies to help mostly income and housing. Turning into the 1990s, the third wave of economic development policies began replacing polices that did not work anymore. New strategies such as clusters, networks and benchmarking became more popular (Bradshaw and Blakely, 1999). The focus was on reinventing the government participation with more demand driven policies, public-private partnership, leveraging, competition, evaluation and feedback. Leadership, information and brokering became more important. Under third-wave programs, new organizational approaches were created, adopting lessons and strategies from first- and second-wave strategies, but providing specific purpose and focus to the use of these techniques. The key to third wave programs was a supportive economic development marketplace rather than payments to firms. It reduced high-stakes incentives and promotions and has shifted emphasis from firm-based programs to broader regional programs (Ross and Friedman (1990), as cited in Bradshaw and Blakely, 1999).

Maliza and Feser (1999) explained that economic development from the 1990s to our times has experienced different transformations such as:

1. the reshaping of housing development,
2. the creation of empowerment zones,
3. welfare reforms,
4. new markets initiatives,
5. the rapid growth of globalization,

6. the abandonment, degradation and deprivation of the downtowns (though downtown revitalization has been growing recently)
7. the development in the suburbs with huge shopping centers and department stores,
8. an internet-based network and market that has been growing rapidly (Malizia and Feser, 1999).

There are still problems with third-wave economic development initiatives. These initiatives are still based on a business-centered approach, using market criteria, not holistic criteria to define success and it is still based on competition with other places. The current economic crisis and the new trends in economic development (e.g., sustainability, climate change, the new economic geography, and community-based development efforts) set the basis for a new wave. The practice of economic development needs to be reinvented. Nonetheless, Reese and Ye (2011) suggested that the waves or phases of economic development are cumulative rather than evolutionary.

Suggestions of a new wave have been offered in some academic research. Clark and Gaile (1992) claimed that a new wave of post-federal local economic development strategies has been developing. Their study reveals that these strategies are characterized by community empowerment, the reliance of community own-source revenues, risk-taking rather than risk-aversive approaches, and the fostering of indigenous growth and job-creation strategies. Willard (2005) suggested that the new wave of economic development was the sustainability revolution. In this wave, economic development is influenced by sustainable development that include alternative energy systems, green jobs, sustainable agriculture, industrial ecology, and community-based strategies, among others.

2.4 General theories of regional economic development

"The economic developer's role is to participate in the process of national wealth creation for the benefit of local consumers and producers by facilitating either the expansion of job opportunities and the tax base or the efficient redeployment of local resources (Malizia, 1994, p.84)" Generally,

the economic developer pursues this approach by following different concepts and strategies from existing economic development theories. These theories are reviewed in this section. Economic development approaches are mainly two-fold; the normative concept of development *per se* and economic growth. Policy and decision-making processes in economic development are based on a three-fold framework: (1) supply- or demand-side approaches, (2) people- or place-based approaches, and (3) public or private leading roles.

Eisinger (1988) distinguished between supply-side traditional driven strategies and demand-side, entrepreneurial and innovative strategies. On the one hand, demand-side approaches focus on new capital, new markets and businesses, and once they are found, the goal is to expand and develop them, maximizing their benefits. Development assistance is offered, but only if it is deserved, matching strategic goals and well-developed plans. Government's role in the economic development process is not to work for and follow the private sector as in supply-side strategies, but to identify new product, market and industry opportunities overlooked by the private sector. Under demand-side approaches, governments invest time and money in high-risk enterprises and initiatives (Eisinger, 1988). On the other hand, supply-side strategies promote growth through subsidies of capital and land as well as tax cuts. The focus is on existing capital, making efforts to retain and relocate capital, competing sometimes with other regions for this capital. Government invests in low-risk opportunities and the availability of development assistance is there for every employer (Eisinger, 1988). Accordingly, inquiries over the efficacy of supply-side strategies have caused regions to become more demand-side adopters of development strategies rather than supply-side.

Bolton (1992) distinguishes between people- and place-based economic development polices. He described people-based policies as those aimed to improve "the welfare of deserving people as individuals, regardless of where they live (p.187)" and place-based policies as those focused on "the welfare of groups of deserving people defined by their spatial proximity in places (p.187)." He

emphasized that this distinction occurs under the scenario of an economically impoverished and declining place. Policies aimed to encourage people to move out of those places through subsidies or grants are people-based policies. Alternatively, employing resources to improve infrastructure and the competitive advantage of regions are place-based policies (Bolton, 1992). In a broader context, people-based strategies are exemplified by training/education efforts, housing assistance programs, and welfare programs, among others; in contrast, place-based initiatives include enterprise zones, business improvement programs, infrastructure and neighborhood investments, urban (and downtown) development, etc. (Glaeser, 2000).

The role of public and private sector in development has been widely discussed as well. Throughout different waves of economic development, the role of government has evolved from being an infrastructure and social and human capital facilitator to an entity that compensates for market failures (Krueger, 1990). Currently, in an era of research and development, the public sector has been a source of research funding, though funding from private sector sources has been increasing at a very fast pace (Graham and Woo, 2009). Generally, the private sector has been the decision maker, the entities that truly rule the economy in the U.S., the job creators, the money-makers, and those responsible for the nation's prosperity. However, in the current crisis, more debate have been generated in regards to the role of governments as a "band-aid" for the market failures by the banks and other private institutions. More people are challenging this (public-private) balance of role in the economy, especially with the successful central role of public institutions in capitalist development in the East-Asian countries (Evans, 1999).

Approaches either on the supply- or demand-side, people- or place-based, top-down or bottom-up, among others have been promulgated under different economic development theories. These theories are going to be used as the framework to categorize and analyze the survey responses. Table 4 summarizes each theory based on table 2.1 in Malizia and Feser (1999, p. 26-28).

Table 3. Summary of economic development theories

Theory	*Basic Categories*	*Definition of Development*	*Essential Dynamic*	*Strengths*	*Weaknesses*	*Applications*	*References*
Export Base Theory	Basic vs. Non-Basic sectors	A quantitative increase in the rate of growth of output (products), income, or employment	External demand for a region's products drives the local economy; Economic base multiplier effects	Very simple to apply; Data available to measure these changes; Very popular theory ; Good for short-term prediction; Emphasizes the importance of most critical local industries	Overemphasis on the basic sector; Inadequate for understanding long term ED; Ignores that regional economies are integrated by mutually dependant activities	Industrial recruitment and promotion; Expansion of existing export industries; Free Trade; Improve efficiency through infrastructure upgrades	Krikelas (1992); North (1955, 1956); Parr (1999a); Tiebout (1956a, 1956b)
Staple Theory	Exporting industries	Export-led economic growth	Successful production and marketing of export staple(s) in world markets	A historical and political perspective for ED; Provides insights into local values, politics, and wealth; Explains growth over time (in the early stages) often due to a local staple	Hard to apply the theory; Better at explaining past development than providing guidance for local actions	Export specialization; Focus resources and policies upon the local staple as long as it remains competitive; competitiveness of the staple is a public task	Altman (2003); Grant (1974)
Sector Theory	Primary, Secondary and Tertiary sectors	Greater sectoral diversity and higher productivity per worker	Per capita increases and labor productivity drive technology which leads to sectoral diversity	Empirically focus on the internal economic structure; Provides theory and measures structural change in the local economy	Very simplified categories, too general; Does not directly take into account role of exports in growth	Promote sectoral shifts; Attract and retain producers of income elastic products	Henderson (1974); Hoover and Fisher (1949); Pred (1977); Thompson (1968).

Table 3. Cont.

Theory	Basic Categories	Definition of Development	Essential Dynamic	Strengths	Weaknesses	Applications	References
Growth Pole Theory	Industries	Propulsive industry growth leads to structural change	Propulsive industries are the poles of growth	General theory of the initiation and diffusion of development based on domination effect.	Although insights drawn from the theory are useful, it has failed as a general theory of development	Growth center strategies; Concentration of winners and successful industries	Parr (1999b, 1999c); Perroux (1950)
Regional Concentration and Diffusion Theories	Commodities and factors or industries	Diffusion of growth; Higher income per capita	Propulsive industries attract growth (poles of growth) which leads to trickle-down effects (or backwash) for surrounding areas	Spatial analysis of growth; Account for agglomerative tendencies of firms; Address the dynamics of development	Highly abstract; Unclear definition of what a growth center is; Assumes strong linkages between individual cities and their periphery	Growth center policies have long been a hallmark of economic development efforts to mitigate backwash effects and reduce inequalities, and spur development	Hirschman (1958); Myrdal (1957)
Neoclassical Growth Theory	Looks at entire economy as a whole	Increasing rate of growth (per capita) at the regional or national level	Savings and investment promote capital formation, which drives the economy	A supply-side model; Widely popular theory	Ignores the role of the demand-side; Accepts decline of areas; Implies a limited governmental role	Free trade, lack of government role only for the benefit of business development Government should promote economic integration both tolerate social inequality and spatial dualism	McCombie (1988); Solow (1956)

Table 3. Cont.

Theory	Basic Categories	Definition of Development	Essential Dynamic	Strengths	Weaknesses	Applications	References
Interregional Trade Theory	including attributes of price and quantity	Growth leading more spending and continued growth (and more consumer welfare)	Equilibrium is arrived at through the trade of goods	Unique emphasis upon consumer welfare and price effects	Ignores dynamics of development and negative social effects of growth that are not included in the prices of goods	Governments should promote free trade (infrastructure investments, lowering tariffs) and be more efficient	Barnes (1985); Leamer (1995)
Product Cycle Theory	Product stages: New, Maturing, Standardized, Declining	Continuous creation and diffusion of new products	Innovation; Creative destruction; A good product mix is the foundation of a strong economy	Describes relationship between innovation, structural change, and economic development outcomes; Describes the research and production process very well;	Poor at explaining the services sector; Does not take into account product differentiation; Unclear on issues of ownership and control	To determine its ability to compete for either new or standardized products; Promote product innovation and further diffusion	Norton and Rees (1979), Vernon (1966),
Entrepreneurship Theories	Entrepreneurs ; Innovative Milieu	Resilience, Diversity	Innovation process; New products and new combinations	Important role of entrepreneurs; Importance of capital in business formation	Ignores high rate of entrepreneurial failure and existing economic structure, ability to innovate	Support Entrepreneurs and business development strategies	Bellandi (1996); Harrison (1992); Kamann (1997); Maillat (1991)
Flexible Specialization	Production regimes; Industrial organization	Quantitative increases (growth) through agile production, innovation, and specialization	Flexibility among producers allows for competitiveness and growth	Emphasizes structure and fast-changing characteristics of the post-modern economy; Industrial organization matters	Ignores that business flexibility leads to worker and community hardship; Ignores local economic structure	Encourage flexibility and technological upgrades; Develop industry networks and clusters	Piore and Sabel (1984); Porter (1990); Sabel (1989); Storper (1989)

Table 3. Cont.

Theory	Basic Categories	Definition of Development	Essential Dynamic	Strengths	Weaknesses	Applications	References
Human/Social Capital	Innovation; Education; Creative Workforce; Networking	Value-Added Services and Goods	Development is based on the skills and value–added capacity of the workforce and social networks	Clear connection between skills of workers/education and economic growth; Emphasis on cultural and economic diversity and openness	Expensive and complex to implement; Social capital theory has been found to be ineffective at predicting economic development success	Support skill-building in the workforce; Invest in people through education and skills training; Investments in amenities for individuals, not businesses (Quality of Life)	Becker (1964); Florida (2002); Putnam (2000); Storper (1993)
CED-led Theories and Strategies	Diverse economies, asset-based, micro-business, local currency, cooperatives, collaborative networks	Community- and local-level empowerment in terms of income, self-sufficiency, decision-making and other capabilities	Development is based on the assets, skills and organizational capacity of the community; bottom-up development	It is locally focused; Merges social and economic goals; Guided by strategic planning; Better achieves equity; multi-functional strategy or development system	Is a changing and complex field; not yet fully systematized conceptually; Different and contrasting meanings of "community"	Improved community tools; New businesses based on local talents; Training; Education; Organizing; Improved local facilities, Changed practices by established institutions like banks; Making the community a better place to live and work	Zeuli and Radel (2005); Diochon (2003); Malveaux (1990); Pinilla (1995); Rodriguez (1995); Villalobos, (1995); Gibson et al. (2004); Gibson-Graham (2006); Leyshon (2005); Smith (2006); Cameron (2003); Mathie and Cunningham (2003); Kretzmann and Mcknight (1993)

Based on Malizia and Feser (1999, p. 26-28)

Each of these theories frames local and regional economic development efforts nationwide. Their uses and applications vary case-by-case, place-by-place, but all are implemented in relationship or function with each area's capacity for development (economic, social, technological and political) and it's physical and social resources (Blakely and Bradshaw, 2002). These resources include natural resources, location, labor, capital investment, entrepreneurial climate, transportation, communication, industrial composition, technology, size, export market, international economic status, and government spending.

The practice of economic development should be guided by theory, though it should not beholden to it (free will). It is important to understand these theories because economic developers use them. Besides, theories "determine, either explicitly or implicitly, how these developers understand economic development, the questions they ask about the process, the information they collect to analyze development, and the development strategies they pursue" (From EDA's Overview of Economic Development web page based on Malizia and Feser, 1999). Economic development theories help provide a better understanding of the realities and workings of the economic development process and how others may think about and approach economic development.

2.5 The economic development practitioners

Defining, explaining and understanding the practice of economic development is a difficult task, as complex as the concept *per se* in its nature and different strands. However, it is important to understand its context and different dynamics in order to understand the findings in this dissertation. In the quest for this task, it is important to state first that the field of economic development lacks a unifying theoretical framework and the extent of power that practitioners have is yet unclear. Even the definition of the practitioner profession is sometimes ambiguous. Rowe (2009) lamented this issue. He alerted the need for a better understanding of the practice of local economic development and called for the respect the field deserves.

Rowe (2009) encouraged practitioners to mobilize and let the academic and professional organizations know how important and vigorous the field of economic development is. Furthermore, Rubin (1988) wrote about the frustrations of the economic development practitioners because of the uncertainties and dependence that characterize their professions. Economic development practitioners are still criticized and underestimated, and this is often because of the hallmarks of the "shoot anything that flies; claim anything that falls" point of view, described in details by Rubin (1988). The practice per se is often absent of standards and obstructed by internal and external factors); Blakely and Green-Leigh (2009) demonstrated that awareness and motivation of the economic development profession have increased.

Policy for regional and local economic development and the role of practitioners have undergone numerous changes since 1960s (Malizia and Feser, 1999; Rowe, 2009; Stimson et al., 2002). Activities by local economic developers have changed progressively and diversified as a result of the different changes in economic development approaches (Bradshaw and Blakely, 1999). Furthermore, the role of the practitioner and the dynamics of the practice of economic development vary depending on the type of organization, government agencies, private development associations, local development corporations and community development organizations (Blakely and Bradshaw, 2002).

Malizia and Feser (1999) defined the practice of local economic development as "facilitating community development that supports business development (p.4)." Blakely and Bradshaw (2002) and Levy (1990) also supported this market-based definition. Levy (1990) found that sales/marketing activities dominate much of economic development practice. Based on survey responses, 65 percent of the economic developers said that the most important activity of their agency was publicizing the area and providing information. Providing sites and financing were the next most popular answer. These are basically the activities on which economic development agencies spend most of their time and thus consider them to be the most productive use of their

resources (Levy, 1990). Again, the goal is to support business development for the welfare of the community. Yet, there are more detailed visions, perceptions and descriptions of what an economic development practitioner is supposed to accomplish.

Kaplan (1996) saw the economic development practitioner as a very necessary and important professional, alternatively apolitical welfare worker, activist and fieldworker. He asserted that an economic development practitioner is a crucial element in assisting communities towards capacity building, self-reliance, and empowerment. In the same line of thinking, Rubin (2000) brought a more stirring version of the practice of economic development captured through a series of interviews he conducted. Their interviewees coincided in their belief that practitioners exist to empower, educate, advocate, improve, and revive the socio-economic base of their communities. Blakely and Bradshaw (2002) and Blakely and Green-Leigh (2009) expanded on this by claiming that the practitioner must be able to provide expertise and problem solving skills; the objective is to be a facilitator and organizer. These different descriptions help to provide a clearer picture on the practice of economic development. However, the roles of practitioners have been intensified, diversified and professionalized with time.

2.6 Economic development planning: Shifting focus by practitioners

The economic development practitioner face "has evolved from the good salesman to a higher skill professional with a greater understanding of the multiple disciplines that interact in the coalface of daily practice (Rowe, 2009)." From the postwar era to the mid-1970s, the focus by practitioners was based on Keynesian thought, in public economic development agencies and regulatory and mixed economic development policies. Planning was infrastructure oriented with clear and primary goals and objectives. It was the era of the comparative advantage (Malizia and Feser, 1999). From the mid-1970s to the 1990s the focus shifted towards value-added strategies and more structure and strategic planning, incorporating workforce and technology change (Malizia and Feser, 1999). It was the era of a monetarism thought centered on competitive

advantage. Practitioners were engaged in initiatives to reduce social disparities by incorporating disadvantaged groups into the mainstream economy (Malizia and Feser, 1999, Blakely and Bradshaw, 2002).

From the late 1980s to the late 1990s, rationalist thought centered on collaborative advantage started to dominate the field (Blakely and Bradshaw, 2002, Bradshaw and Blakely, 1999, Eisinger, 1998). Practitioners began to carry out a more (multi sector) integrated strategic planning, worried about improving the quality of life of their communities and regions to attract highly skilled workers and firms (Blakely and Bradshaw, 2002). Finally, Stimson et al. (2002) claimed that within the current cooperative advantage focus, sustainability is becoming the new focus of economic policy and everything is working in in accord with sustainability principles. However, this dissertation is focused on collaboration and intergovernmental dependency.

2.7 Regional interdependency and intergovernmental collaboration

Places, cities, and regions are connected in different ways. Migration and differences in place of work and place of residence are classical examples. People moving around cities in a metro area, driving from one city to another to work, or earning money in one place but spending in another are factors that need to be considered by local and regional policy makers and development practitioners. Hewings and colleagues (2009) argued for the existence of a complex web of integrated approaches to regional development that entail spatial interdependence between a vast array of federal, state and local government agencies.

This is an era of regional collaboration following an era of competitiveness, softening or even ignoring political boundaries to identify surrounding areas with similar economic structure, assets and opportunities (Hewings et al. 2009; Rondinelli et al., 1998). The idea is to accept the interdependency between regions and use it to advantage through collaboration. Under this collaboration approach, scholars and practitioners advocate for an increase of intra- and inter-metropolitan interaction with the aim to restructure urban economies and reduce fragmentation

and competition among communities (Bartik, 2003; Bradshaw, 1993; McCarthy, 2003; Rothblatt, 1994).

Interregional dependence has been demonstrated empirically in different ways. One way is by analyzing the changing relationship between establishments and firms and the "hollowing out" thesis (Hewings, 2007; Hewings et al., 1998; Okazaki, 1987). This thesis explains a process of transformation. Various products produced by a firm in a local area are spread over establishments in nearby areas as part of a multi-regional operation, thus increasing interregional trade and interregional dependence.

Hewings and Parr (2007) showed how this spatial interdependence process works in the Chicago metropolitan area setting. They divided the metro area in four zones and ran input-output models to calculate the spatial interactions. Considering inter-sectoral trade, labor mobility and consumption-expenditures patterns, 51 percent of the system-wide production of the central business district of the city of Chicago (zone 1) owes its existence to signals generated in the rest of the metro area (the other zones). The same happens with the rest of the city of Chicago and the suburbs. However, in the outer suburbs zone, only 35 percent depends on the rest of the metro area, making this zone more independent than the others. Still, the research community may witness an important level of interdependency that must be considered for regional and local policy making. The Hewings and Park (2007) paper confirmed and extended on the nature and strength of economic interdependence between inner-city communities and suburbs within the Chicago metro area that was revealed in Hewings and colleagues (2001).

Kim and Hewings (2011) challenge some of the micro-macro issues in intersectoral, interorganizational and intergovernmental collaboration and/or competition. For example, it is appropriate to have 300 communities independently responsible for land use control. However, the changing demographic composition of working households (increasingly dominated by 2 wage-earners) will continue to change the geography of interaction – so even if communities ignore the

interdependence, worker-consumers have already embraced it. Essentially, community-level decision-making (especially related to land use) may compromise the ability of the region to absorb population and employment growth; hence, the need for greater region-wide collaboration.

Another similar process that contributes to the body of knowledge about interregional dependence is fragmentation. This occurs when production is spatially split into different nodes of distinctive activities often located in different local areas. They are connected by service links making a region interdependent. Jones and Kierzkowski (1990, 2001, 2006) present bibliographical and empirical evidence of fragmentation, whereas Hummels *et al.* (1998, 1999) describe a similar process, vertical integration of production, that also leads to enhanced interregional dependence. Furthermore, Hewings (2007) advises on how fragmentation and the "hollowing out" process may also affect migration that ultimately will also affects the dynamics of interdependence in a region.

Other scholar works have also argued in favor of regional interdependence. Ihlanfelt (1995) and Voith (1992) raise doubts about economic dependence and competition and lean more towards an interregional dependence thesis. Downs (1994, 1996) describes important economic linkages between the city and the suburbs suggestion high levels of interdependency. Moreover, Bradbury and colleagues (1980); Chang and Coulson (2001), Gottlieb (2000), Hollar (2003), Leichenko (2001) and Voith (1998), among others have tested empirically the interrelationships between cities and suburbs in a regional economy. These works have demonstrated that population and employment, income levels, house prices, among other variables are spatially related. This interregional dependence framework may provide incentives for collaboration efforts between communities to exploit and enhance the benefits from derive from this interdependence.

As mentioned above, the era of regional collaboration ignores political boundaries to identify surrounding areas with similar economic structure, assets and opportunities. In doing so, cities are relying on a multiple variety of organizations (public, private and even non-profit) to deal with local

economic development challenges (Reese and Rosenfield, 2002). This has led to the formation of strategic interdependent networks among different sectors in a complex web of socioeconomic policy making (Hawkins, 2007). Therefore, networks and intergovernmental activities have become the norm in public management of many regions and cities (Agranoff, 1996; Agranoff and McGuire, 1998a, 1998b; Lynn, 1996; Mandell, 1988, 1999a, 1999b; O'Toole, 1993, 1996). Work by Agranoff and McGuire (2003) and Rondinelli *et al.* (1998) claim that networks and collaborative efforts between different local economic development organizations in a region are needed.

Bradshaw (1993) advises that spatially interdependent communities should share resources for the welfare of all the local economies. This is intergovernmental collaboration. Cities cooperate with others to enhance the welfare of their economies, to become more efficient and reduce costs. Hawkins (2007) provide several examples of such outcomes citing, among others, the work of Bartik (2003), Clarke and Gaile (1998), Collins (1994), Frisk and Norris (2000), Olberding (1997), Savitch and colleagues (1993), Steinback (1991), Voith (1996), Weissbourd (2001) . Local governments cooperate with one another through bilateral and multilateral agreements and under vertical and horizontal networks (Agranoff and McGuire, 1998a, 1998b; Hawkins, 2007). These collaboration efforts and networks are complex and typically linked to specific functions. The ICA framework and the Social Capital framework provide the organizational framework and this will be elaborated in a later section.

In other studies, Cigler (1994, 1996) explores the pre-conditions for multi-community collaboration. Further, Littleton (2005) describes the reasons for inter-local collaboration in the Bluegrass Area Development District and the factors that lead to success in regional projects. Among these factors were the numbers of jurisdictions involved in the project, the amount of grants received and whether or not a project resulted from a state or federal mandate, among others. Gordon (2007) explores the perceptions of economic development practitioners in Illinois in regards to collaboration and competition in their regions. The main findings were that cities do

cooperate, understand the benefits of collaboration and their willingness to engage in more collaborative efforts is increasing. However, obstacles to collaboration are still very influential. The bottom line is that collaboration is mostly beneficial for metropolitan and regional economies, though that does not mean that there are no costs from and barriers to collaboration with other cities. Among the barriers to regional collaboration are the legacy from the era of competition, metropolitan fragmentation (division into too many jurisdictions) and transaction costs (Hawkins, 2007).

In the United States, there are different examples of intergovernmental collaboration efforts such as the Chicago Metropolitan Agency for Planning, an agency created to integrate planning for land use and transportation in the Chicago Metro Area. Hawkins (2007) provides more examples of metropolitan governance (a multi-tiered approach to governing the metro area) such as the Minneapolis-St. Paul and the Portland multi-purpose districts and the Pittsburgh tax-sharing plan. He also highlights examples of regional organizations such as the Advisory Council on Intergovernmental Relations, the Regional Council of Governments, etc. The fact is that intergovernmental collaboration is a reality and the understanding of intra-metropolitan area collaboration is very important for public policy and needs further exploration in regional science and economic research.

Finally, Pettit and Kingsley (2013) urged for some collective actions from communities in the Chicago Metro Area. They found great data availability in the region and a fast moving environment underscoring the need for communication among data-related organizations and thoughtful strategies to take advantage of the potential synergies among the various community information efforts. Pettit and Kingsley (2013) proposed a network linking Chicago's community information assets and stimulating the urgency to explore collaboration across issue silos. They go further and recommend collective planning and action to strengthen the provision and use of community information that would position the Chicago area as a model for other cities. The next section will

elaborate more on the theoretical framework used in this dissertation to study intergovernmental collaboration in the Chicago Metro Area.

2.8 Theoretical Framework

This dissertation combines and extends the ICA and the Social Capital frameworks to the economic development research arena to explore collaborative activities between practitioners in the Chicago Metro Area. It relies on these frameworks to construct a model to identify significant factors influencing the collaborative setting and explain under the conditions under which cooperative joint ventures are formed. This section provides the necessary details about both frameworks.

2.8.1 Institutional Collective Action (ICA)

The ICA framework establishes a comprehensive approach for cooperative interlocal service agreements among governments in a region, typically within metropolitan areas. The aim is to capture the benefits of regional service provision through a collective action mechanism (Feiock, 2004, 2007, 2008). The ICA presents an outline of the characteristics of and conditions for collaboration among local governments. Basically, bilateral and multilateral collaboration are functions of transaction costs, that are ultimately a function themselves of the characteristics of the services provided, the characteristics of the communities, political institutions and policy networks (Feiock, 2004, 2007, 2008). Taking a basic cost and benefit approach, cooperative agreements occur when benefits exceed transaction costs of negotiating, monitoring and enforcing agreements. Thus, collaboration among local governments becomes an institutional collective action (Feiock, 2004; Ostrom *et al.* 1961).

The architecture of this framework has evolved from earlier theories into a diverse set of empirical and theoretical works such as Agranoff and McGuire (2003), Feiock (2004), Feiock, Steinacker and Park (2009), Gerber and Gibson, 2005, Hawkins (2007), Mandell (1988, 1999a, 1999b), Kreuger (2006), Steinacker (2004), among other scholars. This research has challenged the traditional competitive notion of economic development with detailed descriptions and case

studies that respond to the collaborative era. Ongoing research on collaboration and ICA is also developing with case studies in different metro areas throughout the nation and specific cities in Michigan, Florida and Georgia (see the list in Feiock, 2008). The analytical techniques vary from descriptive analysis to OLS, probit, Heckman/HLM and others. However, the ICA does not stand by itself. It has its foundation on two bodies of knowledge: the Coase theorem (1937) and Olson's economic theory of collective action (Olson, 1965).

The Coase theorem states that under free trade with zero or minimum transaction costs, voluntary bargaining between rational entities will achieve a Pareto-efficient allocation (Coase, 1937; Feiock, 2005). In a later work, Coase (1960) referred to the allocation of property rights and, under similar assumptions, stated that two entities will collectively deal with any externalities between them (Feiock, 2005). Coase (1988) extended this reasoning and analysis to larger groups and to collective goods besides property rights (Feiock, 2005).

Olson's economic theory of collective action states that members of a group with interests in common will act collectively to achieve them, especially when the possibility of a better utility and efficiency is high by acting collectively. Thus, this theory is concerned with the provision of public goods through the collaboration of two or more individuals or entities. It also states that collaboration will be possible with selective collaborative incentives, because groups are dealing with public goods; non-excludable and non-rivalrous (like forming regional partnerships as explained in Hawkins, 2007). Furthermore, the costs of organizing and collaborating will be as high as the size of the group, making larger groups gaining less per capita. Conversely, in the absence of collective incentives, it is concluded that the larger the group the smaller the probability of collaboration among members of the group. Another concern in this theory is the impact of externalities on group behavior. Olson warns that in collective action, individuals with more resources will carry a higher burden in the provision of a public good than the poorer ones. There

is also the issue of the "free riders", i.e. individuals or entities in a group benefiting without contributing, increasing the probability of collective action of becoming inefficient.

The ICA framework illuminates the fields of public management and economic development on the transaction costs and factors that affect governments' willingness to collaborate (Feiock, 2005, 2008; Hawkins, 2007). It focuses on the perceptions of local government officials about intergovernmental collaboration, its cost and its benefits (Feiock, 2008). The benefits include greater efficiencies and economies of scale in services production and provision as well as the internalization and addressing spillover problems (Feiock, 2008). Furthermore, individual local entities may benefit from collective action if they can reach their development goals faster than if they act individually.

Feoick (2008) adds that "a decentralized system of governments enhances allocative efficiency if it produces a match between community preferences for quantities and qualities of services and actual service choices and resource allocation; but it can also result in diseconomies of scale in service production and inter-jurisdictional externalities (p. 303)." Economies of scale are a force behind inter-local agreements, especially between fragmented governments, because of the relative low cost given the large output. The constraint of fragmented governments is their size, so the service provision cost is relatively higher. Nonetheless, in a collaborative setting, the greater is the output, the more efficient is the service and the lower is the cost (Feiock, 2008).

Beyond political ambition (Feiock, 2007), competition and geographical barriers (Hawkins, 2007), the problem with inter-local collaboration is the cost associated with the collective action. According to the ICA framework and its Coasian foundation, transaction costs need to be kept low and outweighed by the benefits of collaboration (Feiock, 2007; Feiock, Steinacker, and Park, 2008). As stated above, these transaction costs are affected by characteristics of services, characteristics of communities, political institution and policy networks (Feiock, 2004, 2007, 2008). Four of the main sources of transaction costs are described next.

First, there are information costs, suggesting that transparent information on preferences, outcomes, pros, cons, costs and benefits about all participants in a collaborative agreement is crucial (Feiock, 2008; Hawkins, 2007). The lack of information and clear communication negatively impact motivations and trustworthiness of potential partners (Feiock, 2008). Information costs are affected by the governmental structure of the metro area, number of governmental units and their economic, political and demographic composition, as well as their spatial dispersion (Feiock, 2008). Hawkins (2007) added that the structure of networks also affects information costs and cited studies in support of this finding.

Secondly, agency costs imply that the agencies and their bargaining agents must accurately negotiate cooperative agreements that depart from the preferences and interests of the citizens they represent (Feiock, 2008). If these preferences and interests are too heterogeneous, then the greater will be the differences in terms of preferred outcomes, timing of the outcomes and cost/benefits evaluations by the bargaining agents, thus making cooperative agreement more difficult. The factor that impacts the most these agency costs is demographic homogeneity/heterogeneity; the more homogenous the better (Feiock, 2008).

Thirdly, negotiation/division costs mean bargaining agents must know how to divide the gains and the costs. Low disparities in bargaining power will increase the probability of collaborative agreements (Feiock, 2008). Otherwise, Olson's warnings about disparities in power in his economic theory of collective action become important.

Fourthly, there are enforcement costs. Monitoring and enforcing a collaborative agreement should not be too costly. Clear and plausible commitments are very important to keep these costs low. Geography is another important factor. Feiock (2008) stated that close geographic proximity and long-term interactions on different common issues reduce these costs.

Overcoming these costs means having the ability to overcome the problems associated with these costs that ultimately affect collective action. Feiock and Park (2005) stated that given sources

of transaction costs, "it is not surprising that much of the literature assumes that centralization of authority and consolidation of decentralized governmental units is necessary for effective action (p.15)." Feiock (2008) offered some advice on how to overcome these costs. As noted in the explanation of the transaction costs, it was evident that the characteristics of services, communities, political institutions and policy networks are very important factors in predicting collaboration, because they impact the amount of transaction costs in collaborative efforts. Details on these factors are explained in the methodology section, where the variables used to measure them are described. Nonetheless, when dealing with the policy network factors, the social capital framework becomes relevant to explain collaboration. The next section offers a brief overview of this framework.

2.8.2 Social Capital

The social capital framework was identified in studies such as Bourdieu and Passeron (1970) and Jacobs (1961), and has been developed most extensively since in pioneering work such as Burt (1992), Coleman (1987, 1990), Portes (1998) and Putnam (1995). Nowadays, the dimensions of social capital go beyond a specific scope, being popularized, empirically tested and philosophically analyzed in fields like economics, geography, sociology, political science, among others. The aim of this section is to provide a general overview of the specific ties with the topic of this dissertation.

Social capital is the process where norms and networks facilitate collective action for mutual benefit. It focuses on who knows whom (social networks), the character of these networks, the strength of the ties in the network, and the levels of trust and reciprocity (Knack, 2001; Putnam, 1995; Sander and Lowney, 2006). Ceteris paribus, the expectations from members of communities with high social capital are to be more creative, efficient and responsive, to better address public (common) issues, to monitor one another's behavior with trust and no rivalry, to achieve and enforce contractual agreements, and to resolve disputes more amicably (Putnam, 1995). Consequently, communities are safer, cleaner, wealthier, stronger, more literate, better governed

and happier than those without high order social capital. Therefore, one of the policy goals in economic development should be establish, nurture and sustain social capital at the community and institutional levels.

Portes (1998) identifies four sources of social capital, where the basic idea is that social capital is inherent in the structure of their relationships. He distinguishes between two consummatory and two instrumental sources. The consummatory sources are value introjection and bounded solidarity, whereas instrumental sources are reciprocity exchanges and enforceable trust. These increase the ability to secure benefits through membership in networks and other social structures (Portes, 1998). The benefits are for both the individual members of a network and the community (socioeconomic development). Furthermore, Woolcock (1998) and Woolcock and Narayan (2000) conclude that the structure of the state, its different civic and corporate networks and the organizational ability of its society together constitute key factors for development. The extent of relations within and between social groups at different levels of society impacts its participatory level, sustainability level and growth ability.

In order to put to work social capital strategies, it is important to have trust-growing elements such as repeated exposure and shared spaces, honesty in communications, follow-through on commitments and consistency in behaviors (Knack, 2001; Sander and Lowney, 2006). This is virtually consistent with some of the discussion above on ICA. Cohen and Prusak (2001) argue that high levels of social capital within and between organizations strengthen and sustain them in a volatile market through elements like trust, mutual understanding and commitment. Tsai and Ghoshal (1998) investigate intrafirm networks and conclude that social interaction and trust among them significantly impact their interunit resource exchange and innovation. Furthermore, Knack and Keefer (1997) provide more evidence on how social capital matters for measurable economic performance through trust and other civic norms.

In this dissertation, the most important thing of this framework is how social capital and the resulting social networks affect collaborative efforts. Networks are very important because socioeconomic policies and outcomes are affected by the way actors are embedded in networks, their structures and the relationship between them. Embededness is the degree to which individuals, entities or firms are entangled in a particular network (Granovetter, 1992). Hawkins (2007) refers to the work of Granovetter (1992) to state that a high level of embededness generates trust. He also expands on the fact that, trust in institutionalized social networks influences the formation of industrial clusters. Ultimately, embededness and social integration influence business collaboration, stronger relationships and regional economic development (Cooke, 1997; Piore and Sabel, 1984). Thus, social networks with active local governments embedded in them are crucial for collective action.

The structure of networks and social capital research move in tandem with the study of collective action. For example, Ostrom and Ahn (2005) describe trustworthiness, networks and formal and informal rules and institutions as the most important forms of social capital that are particularly relevant in this discussion. Moreover, they are crucial to reduce transaction costs, because strong networks reduce uncertainty, reducing information costs and increasing communication and accessibility (Butt, 1992, 1997; Coleman, 1990). As explained earlier in this literature review, economic development practitioners face many uncertainties and ambiguities in their profession, ultimately affecting policy-making (Blakely and Green-Leigh, 2009; Blakely and Bradshaw, 2002; Rubin, 1988). Therefore, the importance of social networks goes beyond the scope of overcoming problems of collaboration and collective action (Gulatti, 1995), and it also affects the practice of economic development per se.

Hawkins (2007) elaborates more on the literature of network structures and its influences on social capital. Among his most appealing references, he dedicates a few paragraphs on how the configuration of networks (closed or with structural holes) impacts not only goal achievement

among their actors but also social capital in general. In addition, he describes different types of network closures (closed, cohesive and dense), centralized networks, brokers and the structural hole theory. Network closure refers to a measure of the completeness of relational triads (i.e., to what extent or degree your friends are also friends). Closed, cohesive and dense networks refer to the number of social ties, the type of tie and whether or not members of a group are close to each other, how close they are and how many close friends you have in a network. A centralized network refers to a system where all the users connect to a central collaborator that is the acting agent for all communications. When we talk about brokerage, we are talking about networks as structures of exchange (information or material) with certain advantage over other agents or network due to a lot of structural holes (i.e. non-redundant ties) in their network. The common ground of all of these sub-topics is the importance of cooperative norms like trust, commitment, consensus and reciprocity, plus the frequency of interaction within and between networks. The methodology section that follows this literature review offers additional details on social network, specifically relevant to the model.

2.9 The Chicago Metro Area

Appendix A presents a set of statistics about the study area to offer an overview of the main characteristics of the region. The Chicago metro area, under the jurisdiction of CMAP, has a population of 8,431,386 as estimated by the 2010 Census Redistributing Data (Public Law 94-171) Summary File. This represents a 3.5 percent (or 285,122 persons) increase, compared to the US Census 2000. However, the period 2000-2010 experienced a lower population growth, compared to the 1990-2000 increase of 11.58 percent or 845,675 persons. The city of Chicago, which accounts for 31.9 percent of the population of the metro area, lost 6.9 percent of its population, and Cook County (61.5 percent of the metro area) lost 3.4 percent. However, the rest of the counties grew and Kendall County experienced the largest increase rate (110.4 percent). Will, Kane, McHenry, Lake and DuPage counties grew 34.9, 27.5, 18.7, 9.2 and 1.4 percent respectively. The

primary contributor of the region's population growth over the past 10 years has been the growing number of Latino residents (more than 25 percent increase).

At the time the survey was administered, the region's economy had an unemployment rate of 9 percent (IDES: Nov 2010) and 12.5 percent of the population were living below the poverty level (ACS: 2009). Unemployment is reasonably consistent across the 7 counties in the region from 8.4 percent in DuPage County to 10.3 in Kane and Cook counties. However, patterns of poverty are notoriously uneven; Cook County has 14.8 percent of the population living below the poverty level, in contrast with 9.5, 7.7 and 6.6 percent in Kane, Lake and Will counties. Kendall County has the lowest percentage (1.9). Overall these statistics remained consistent in 2013. Although the unemployment rate was as high as 9.6 percent in the transition between 2010 and 2011, the US Census reported a rate of 8.1 percent last year and the Bureau of Labor Statistic reported a rate of 8.1 percent last August. Nonetheless, poverty increased to 14.5 percent, which surpasses the national unemployment rate of 7.3 percent (Bureau of Labor Statistics), while the national poverty level is higher with more than 16 percent (U.S. Census Bureau). In reference to levels of formal education, 40.8 percent of adults aged 25 or older in the Chicago Metro Area have at least an associate degree mirroring the national trend (U.S. Census Bureau). An average of 39.2 percent of the same population has at least 4 years of college, which is more than 8 percentage points higher than the national trend.

In regards to coordinated planning, 41 percent of surveyed municipalities adopted their most recent comprehensive plan after 2002. In developing that plan, they considered regional plans like the 2030 Regional Transportation Plan developed by CATS or the 2040 Regional Framework Plan developed by NIPC (CMAP: Municipal Plan Programs and Operations Survey)[2]. This suggests the practice of interregional coordination.

[2] CATRS and NIPC were merged into CMAP in 2005.

CMAP is undergoing an ambitious set of economic development programs to be implemented into the region for the next 30 years. For example, they have been working on the 2012 Community Planning Program, which is a competitive grant program that provides funding for communities to participate in projects linking land use and transportation. CMAP is also initiating local planning assistance projects and providing training sessions to equip planning commissions in local areas with guidance and resources for better decision making. They are also offering local technical assistance throughout the metro area; assisting with water management and energy innovation projects; supporting regional employment clusters through strategic investments in education, workforce development, and other human capital projects.

CMAP has also been working on a comprehensive regional plan called GO TO 2040, which is a great example of collaboration, encouraging local officials, businesses, and other stakeholder groups to implement recommendations on various action areas of development with broad implications for residents' daily lives in the metro area. These action areas are organized under four themes: Livable Communities, Human Capital, Efficient Governance, and Regional Mobility. *Livable Communities*, discusses how to improve the region's "livability" – what attracts people to a particular community. This involves improving efficiency in areas, such as land use and housing, water and energy resources, recreation, and sustainability. *Human Capital* discusses the ways in which the region's economy can thrive based on the availability of their creative class. Recommended actions include improving education and workforce development and supporting economic innovation. *Efficient Governance* deals with accountability and transparency of local governments. This is obtained by improving access to information, pursuing coordinated investments, and reforming state and local tax policies. Finally, *Regional Mobility* refers to the vitality of the region's transportation system. This is challenged and acknowledged as a crucial area

of improvement for economic prosperity and quality of life. More information about GO TO 2040, including the full version of the plan, is available at www.cmap.illinois.gov/2040.[3]

2.10 Filling the gaps

This dissertation looks to fill three gaps in the literature. First, it is necessary to know first-hand if communities in the Chicago Metro Area are aware of the advantages of collaboration and if they already collaborate from planning and decision-making perspectives. Incidentally, no research has been done on this topic in the Chicago Metro Area, though Gordon (2007) wrote about perceptions of collaboration and competition among economic development decision makers in Central Illinois. If communities are found to collaborate, the variables impacting their willingness to collaborate needs to be analyzed. Second, interregional dependence as discussed in this literature review needs to be linked with existing intergovernmental collaboration. Existing research has not looked at the impact of awareness of that interdependence on the willingness to collaborate. Finally, the impact of collaborative activities in facilitating capacity and consensus building in the local economic development process needs to be assessed. Actually, Hawkins (2007) stated that little consensus has been reached on the degree to which collaborative policies result in measurable benefits.

The next chapter elaborates more on the methodology used in this dissertation to fill in the gaps discussed above. This chapter describes the study area and data collection strategy. It also discusses the methodological approaches used. It describes the social network analyses performed, the logistic regression model used and the exploratory analyses that were undertaken to meet the objectives of this dissertation as well as answering the research questions posted in section 1.1.

[3] This plan was nominated for the National Association of Regional Councils 2011 General Achievement Award.

CHAPTER 3 METHODOLOGY

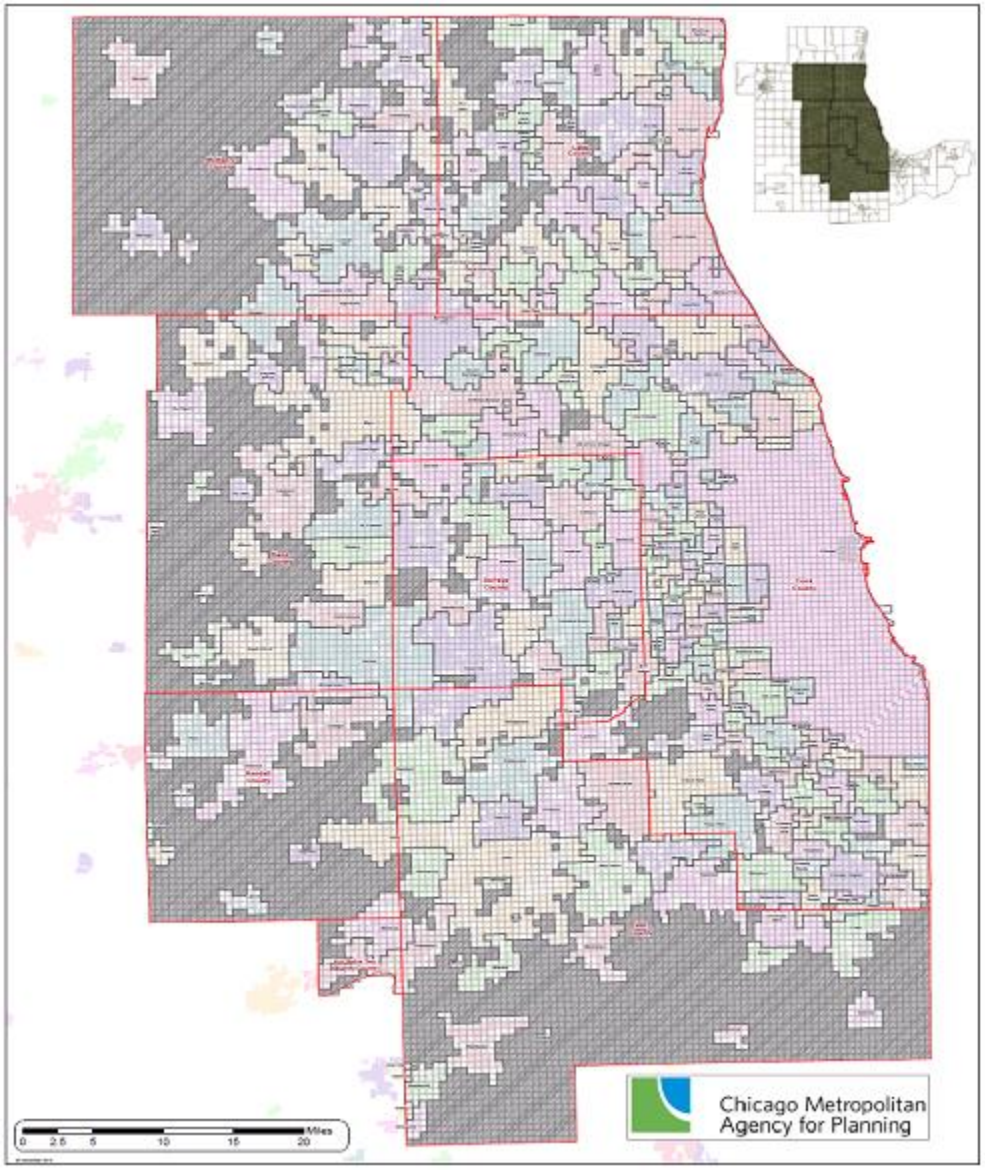
3.1 Unit of analysis, sampling criteria, and data collection

The unit of analysis is the Chicago metro area. Since the focus on sampling is place not people, this dissertation considers all communities/municipalities under the jurisdiction of CMAP (see Figure 1). These regions being under the same regional planning umbrella of CMAP and sharing the same state boundaries, made it more attractive than the Chicago Tri-State Metro Region for the purposes of this dissertation. Besides, this unit of analysis is comparable and consistent with Hawkins (2007), Hewings and colleagues (1998), Hewings, Okuyama and Sonis (2001) and Hewings and Parr (2007).

In regards to the sampling criteria, a list of economic development officials was constructed by collecting information from CMAP, the Regional Economics Application Laboratory (REAL) database, an online search and the city of Chicago. Potential participants were selected if they were leaders in economic or community development in one of the communities within the unit of analysis. A convenience sampling was used where a sample from the target population were contacted via email and/or phone informing them about the survey study and inviting them to participate. If they could not be reached by these methods of communication and a mailing address was available, the survey packet was sent to them.

Data was collected using two different surveys drawing from Hawkins (2007): one for communities using a collaborative approach and another for communities that do not. To increase the response rate, flexibility in survey distribution is important. Therefore, the survey was made available in hard-copy and online through Survey Gizmo. The surveys were mailed and/or emailed to local development officials from a total of 283 communities. Survey packets included a cover letter and pre-survey (mailed surveys also included a prepaid envelope, so that participants could easily send back the completed surveys). A total of 211 officials responded to the request, but only 91 completed surveys were returned, representing a 32% response rate.

Figure 1: Study Area



Although 32 percent is a relatively low survey response rate compared to similar studies, it is higher than the average rate of 30 percent suggested by the International City/Council Management Association surveys (ICMA, 1989, 1999, 2004) and the 26 percent proposed by Reese and Rosenfield (2003). A *t*-test with unpaired difference in means was used to determine if local governments that returned the survey were significantly different from others in the study region.

The pre-survey was a Situation Awareness Index and included seven items assessing the extent to which communities and development officials aware of what is going on around them as a way to

measure interregional dependence. Survey respondents answered each question on a scale ranging from 1 (not at all aware) to 5 (extremely aware). A sample item was: *Are you aware of how many of your residents work in your community and how many of them work in other communities?* See Appendixes B and C for further details.

Respondents were asked to complete Survey 1 if they used a collaboration approach or Survey 2 if they did not. Survey 1 (see Appendix B) comprised of 31 closed-ended questions, asking respondents to list the communities that they collaborate with, whether they had established agreements with the nearby communities, when the agreement was established, reasons for establishing the agreement, the entities that engaged in the collaboration, how the terms of the agreement were specified, whether there is a governing board that oversees the collaboration, budget and characteristics of the agency, and a demographic profile. It also included a section where respondents identified, from a list of 38 economic development policies, the ones used in their local government to encourage development. Survey 2 (see Appendix C) included 20 closed-ended questions and is similar to Survey 1, with the exception of the questions on collaboration.

Survey responses were confidential and none of the questions were anticipated to be sensitive or threatening. Therefore, participants were expected to cooperate and answer all the questions without major concerns. Participation was strictly voluntary and participants had the right to quit at any time while answering the survey without penalty or retribution. They were informed that the results will be published and presented in aggregate form. It was guaranteed that identifying information about the participant and the agency would also be kept confidential, and instead code numbers were used. The data obtained from the surveys were safely stored in a safe place.

3.2 Data Analysis

Three different types of analysis were conducted in order to answer the research questions. First, a set of social network analyses were performed to examine the characteristics of the intergovernmental collaborative network structure in the Chicago metro area. This was followed

by a logistic regression analysis to identify the factors that influence the potential for intergovernmental collaboration. Finally, an exploratory analysis was performed to describe the extent to which collaborative activities facilitate capacity and consensus building. Mean *t*-tests were used to identify differences between the communities that engage in collaboration efforts and those that do not. .

3.2.1 Social network analysis

The social network analysis measured three areas: intergovernmental interaction frequency, collaborative norms, and characteristics of the network structure. In order to measure the frequency of interaction between local governments, the following survey question was used: *In the past 2 years, how often has your community/municipality communicated with other communities in the Chicago metro area to discuss economic development issues?* Answer choices were: *1-2 times a year, 3-10 times a year, monthly, weekly, daily*. See Appendixes B and C for further details. The resulting descriptive statistics are shown in chapter 4.2 and 4.6. The responses were also used as an independent variable in the logistic regression explained in the next section.

Collaborative norms indicate the extent to which communities act in a collaborative fashion because of the existence of certain norms of trust, commitment, and reciprocity (Hawkins, 2007; Olberding, 2002). This variable was measured with a 7-item additive index of perceptions of intergovernmental relations based on the items in the survey used in Hawkins (2007) and Olberding (2002). A sample item was: *Local governmental officials in the Chicago metro area are committed to positive change for the entire region*. Each item was measured on a 5-point response scale ranging from 1 (never) to 5 (always), thus the additive index ranges from 7 to 35. See Appendixes B and C for further details. The resulting descriptive statistics are shown in chapter 4.3 and 4.5 (Table 7), and used in the logistic regression model.

The characteristics of the network structure were assessed using two different methods to generate related variables. First, survey respondents were asked to review a list of all the

communities/municipalities of the Chicago metro area considered in this study and to mark the ones that their local government has relied on, or collaborated with, in the last two years. See Appendixes B and C for further details. This resulted in a binary matrix coding as 'one' the communities/municipalities that have a network structure and as 'zero' those that do not. Second, survey respondents were asked to identify the top 3 government or non-government organizations that their local government has relied on the most in their economic development efforts in last two years. The results provided entries into a 2-mode matrix, with rows representing the communities/municipalities and the columns representing their responses.

The two matrices explained above were examined using different levels of measurement that represent the characteristics of the network structure. These are size, density, and degree of the network; reciprocity; transitivity; clustering; distance; and centralization. The statistical software used to calculate these measurements is UCINET. This software allows for data and matrix import, manipulation, description and operationalization. The equations (1-6) embedded in the software to perform the network analysis, as well as the commands are labeled in Figure 2.

The size of network is often critical to understand its behavior, exchange of resources, and capacities (Carrington *et al.*, 2004; Wasserman and Faust, 1994). It represents a unique ordered paired of actors and it is displayed in Equation (1). The density of a network is the degree of linkage among the individual nodes in a graphical representation (Carrington *et al.*, 2004; Wasserman and Faust, 1994). It reflects the overall proportion/strength of connections among network members and it is displayed in Equation (2). As Hawkins (2007) noted, "measuring the density of a network provides an index of the degree of dyadic connection in a population." (p.87)

The degree of a network is the number of connections or edges from a node to the other nodes (Carrington *et al.*, 2004; Wasserman and Faust, 1994). If a network is directed (i.e., edges point in one direction from one node to another), then the nodes have two different degrees: the in-degree (i.e., in-coming edges or parties collaborating with the focused node) and the out-degree (i.e., out-

Figure 2: Diagram of equations embedded in network analysis[4]

$Ntwk_{Size} = k \times (k-1)$, *k = number of actors* (1)

$Ntwk_{Density} : \Delta = \frac{l}{n(n-1)/2}$ [5], *l = number of lines present, n = number of nodes* (2)

$Ntwk_{Degree} : Out = \sum_i x_{ij} \mid In = \sum_j x_{ji}$,[6] (3)

$\sum_i x_{ij}$ *= row-wise, sum of the connections from actor i to others j.*

$\sum_j x_{ji}$ *= column-wise, sum of the amount of actors j with ties with actor i.*

$Ntwk_{Transitivity} : T = 100\left(\frac{t_T}{\sum t}\right)$ [7], (4)

t_T *= number of transitive triads.*

$\sum t$ *= number of triads of all kinds.*

$Ntwk_{Betweenness} : C_B(v) = \sum_{a \neq v \neq b \in V} \frac{\sigma_{ab}(v)}{\sigma_{ab}}$ [8], (5)

σ_{st} *= number of shortest paths from a to b.*

$\sigma_{ab}(v)$ *= number of shortest paths from a to b that pass through a vertex v.*

$Ntwk_{Closeness} : C_c(v) = \frac{1}{\sum_{w \in V \setminus v} d_G(v,w)}$ [9], (6)

$d_G(v,w)$ *= shortest path between a vertex v and all other vertices reachable from it.*

---

[4] These equations were run as functions or command in UCINET. For example, to describe the data and see the matrix, the command is Data>Describe.

[5] Network>Properties>Density

[6] Network>Centrality>Degree

[7] Network>Properties>Transitivity

[8] Network>Centrality>Betweenness

[9] Network>Centrality>Closeness

coming edges or parties with whom the focused node collaborates). This is illustrated in Equation (3). Another measures for the network are reciprocity and transitivity. Reciprocity measures the tendency of vertex pairs to form mutual connections between each other. Transitivity describes a node through which communication travels, e.g. $\{k_{12}, k_{23}, k_{13}\}$. This measure provides the density of transitive triples in a network; the triples can be ordered or unordered (Carrington *et al.*, 2004; Wasserman and Faust, 1994). This is illustrated in Equation (4).

In regards to clustering in network analysis, it provides a coefficient that measures the degree to which nodes in a graph tend to cluster together. The distance in a network is also important because it tells how close or distant communities are in this particular case study. If A tells B, and B tells C (and A does not tell C), then actors A and C are more distant than A and B or B and C. These characteristics are examined through centralization measures due to the nature of the data (Carrington *et al.*, 2004; Wasserman and Faust, 1994).

Network centralization examines the overall network structure, indicating whether it is organized around one or a few central actors (very centralized), or no dominant actors (less centralized). Two different measures were used here: betweenness and closeness. Betweenness is the extent to which a node lies between other nodes in the network, bridging clusters, connecting actors indirectly through their direct links. For example, if actor A lies between each other pair of actors and no other actors lie between A and other actors, then actor A has an advantage in the star network since A is more powerful. If A wants to contact D, A may simply do so. If D wants to contact F, they must do so by way of A. On the other hand, Closeness is the extent to which an actor is near all other actors in a network. For example, if actor A is closer to more actors than any other actor, then actor A has an advantage in the star network, A is more powerful (Carrington *et al.*, 2004; Wasserman and Faust, 1994). Equations (5) and (6) display a mathematical representation of these concepts.

3.2.2 Logistic regression analysis

A logistic regression analysis was conducted to test the extent to which variables identified from the literature influence collaboration. This model draws extensively on Hawkins (2007) and McGuire (2000). Equation (7) displays the regression model and Table 4 provides a description of the independent variables in the model with the hypothesized direction of the relation between these variables and collaboration. The Statistical STATA SE 10.0 was used to perform this part of the analysis.

The dependent variable represented whether or not a community has a joint venture or collaboration (Hawkins, 2007). The term joint venture was defined in the cover letter and as a footnote to the question as follows: *A joint venture for economic development is meant by both formal and informal cooperative agreements established between local governments of 2 or more communities that are intended to encourage development and improve economic and fiscal conditions*. Each survey respondent answered '*yes*' or '*no*' to the following question: *Has your community voluntarily established a joint venture with other local governments for economic development purposes?* Thus, consistent with previous research, this study used a binary dependent variable (Feiock and Clingermayer, 1992 and Fleischmann, Green, and Kwong, 1992 as cited in Hawkins, 2007). If the respondent indicated 'yes' to having joint ventures, the variable was coded 'one'; otherwise, it was coded 'zero'. See Appendixes B and C for further details.

The first variable, geography, has been found to affect economic policy decisions. This demonstrates that space matters, not only to economic development and growth indicators, in general, but also to attitudes and practices (Gallup et al., 1998). Moreover, Hawkins (2007) cites several studies demonstrating that location within a metro area influences the extent of economic development and policy adoption by local governments. Therefore, geography, or the community's relative location with respect to the main economic center (i.e., Chicago metro area), was expected to increase the probability of establishing collaborative efforts.

Table 4: Model explanation

$$Logodd(Y) = \beta_0 + \beta_1 Geog + \beta_2 PopLog + \beta_3 Pov + \beta_4 Diversity + \beta_5 Fiscal + \beta_6 Manu + \beta_7 DevActive + \beta_8 DiffPov + \beta_9 DiffDiv + \beta_{10} Plan + \beta_{11} Pubpri + \beta_{12} Dir + \beta_{13} Budget + \beta_{14} Income + \beta_{15} Aware + \beta_{16} EmplBed + \beta_{17} Norm + \beta_{18} Cohesion + \beta_{19} + Central + \beta_{20} SupDem + \beta_{21} Edu \quad (7)$$

Variables: Model Label	Variables: Definition	Expected Sign
Logodd	Dependent binary variable whether or not a community has a joint venture: 1 yes, 0 no.	…
Geog	Distance from the City of Chicago	-
PopLog	Total Population (Log)	-
Pov	Percent of population in poverty	+
Diversity	Lieberson's Index of Diversity	-
Fiscal	Long term debt	-
Manu	Percentage of manufacture jobs	+
DevActive	Total # of development policies	+
DiffPov	Difference between community and metro area (percent in poverty)	-
DiffDiv	Difference between community and metro area (percent in diversity)	-
Plan	Dummy: strategic plan in force (1) yes; (0) no	+
Pubpri	Dummy: lead agency is public-private partnership (1) yes; (0) no	+
Dir	Dummy: lead official is a full time director (1) yes; (0) no	+
Budget	Dummy: development budget increasing (1) yes; (0) no	+
Income	Median household income	-
Aware	Spatial interdependency situation awareness	+
Emplbed	Dummy: (1) employment center; (0) bedroom community	+
Norm	Cooperative norms: trust, commitment and reciprocity additive index	+
Cohesion	Network cohesion	+
Central	Network betweenness centralization	+
SupDem	Dummy: (1) Demand-side policies; (0) Supply-side policies	+
Edu	Percentage of persons with a bachelor degree or higher	-

Population size has been found to impact collaborative efforts, but findings have been inconclusive. For example, Clingermayer and Feiock (1990) concluded that population size positively impacted the adoption of development policies. However, Hawkins (2007) found that population size negatively impacted on joint venture formation. Moreover, McGuire (2000) suggested that the population size variable is not significant at all. This dissertation expected that the larger the population size, the lesser the likelihood of establishing a collaboration, because larger communities are expected to have more resources and independence (Hawkins, 2007).

A negative relation was also expected when measuring the impact of racial diversity through the Lieberson's Index of Diversity. Communities that are more similar may find it easier to collaborate, so increased diversity may lead to decreased collaboration (Hawkins, 2007).

Collaborating may represent a transaction cost given the potential complexity in coordinating across communities that are different, particularly if different in terms of their socio-economic status. In order to measure diversity, the Lieberson's composite diversity index displayed in Equation (8) was used. The index ranges from 'zero' (perfectly homogenous) to 'one' (perfectly heterogeneous).

$$D = 1 - \sum_{i=1}^{N} p_i^2 \quad , \tag{8}$$

p = proportion of individuals in an ethnic category
N = number of categories

Other factors in the logistic regression function have to do with the economic condition of the communities. Specifically, percent of the population in poverty, long term debt, expected budget, economic base, median household income, and level of formal education. A positive relation was hypothesized between poverty level and collaboration. Communities with high levels of poverty were expected to be more willing to collaborate given their efforts for implementing innovative approaches to improve their economic development status, as suggested in the literature (Fleischmann, Green, and Kwong, 1992; Goetz, 1993); however, others have found poverty level to be an insignificant factor (Hawkins, 2007). Fiscal stress (long term debt) was expected to be negatively related to collaboration because communities with severe fiscal stress may not be attractive to more affluent communities for collaborative efforts (see Hawkins, 2007). This study used long-term debt outstanding at the beginning of the fiscal year for non-utility purposes.

In regard to community budget, this dissertation only considers the expectation of an upcoming higher or lower budget. See Appendixes B and C for further details. McGuire (2000) used both current and expected budget, but his data set was larger. In addition, almost half of the survey respondents in this research did not provide information on current budget. Therefore, it was better to focus on the expected budget perception data. The expectation was that if the budget is

expected to increase, then a higher probability of establishing a cooperative agreement was expected based on previous research (McGuire, 2000).

Economic base or the strength of the manufacture sector was expected to be positively related with collaboration, as found in previous studies (Greene and Kwong, 1992, as cited in Hawkins, 2007; Hawkins 2007). The stronger the manufacturing sector in the community, the more likely the community will collaborate. Communities with a strong manufacturing sector enjoy higher wages and the multiplier effects on the local economy are higher (Hawkins, 2007). Therefore, communities may be willing to adopt different innovative approaches to development and even collaborate with nearby communities to develop strategies good enough to strengthen the sector. Median household income was expected to be negatively related to collaboration. It was assumed that the wealthier the community, the less need to engage in collaborative efforts. The same rationale was used to predict a negative relation between education and collaboration.

Employment center was a dummy variable used to identify whether the community is an employment center or not. In order to be classified as an employment center, there should be more workers working in the place than living there. Therefore, the qualifiers are those cities with a ratio of 1 or more of workers working in the city divided by people living in the city. Employment centers attract employees from different communities with the expectation that this would enhance the probability of establishing collaboration, so a positive relation was expected.

Differences between particular characteristics of a community and the characteristics of other communities in the region "indicate the homogeneity among potential partners in economic development joint ventures (Hawkins, 2007, p.83)." These differences are linked to transaction costs that ultimately determine the probability of engaging in collaboration. The same measures of poverty and demographic diversity were calculated for the metro area. Then, differences in poverty and demographic diversity between the community area and the metro area were

calculated and used in the model as *DiffPov* and *DiffDiv*. Both variables were expected to have a negative impact on the probability of establishing a cooperative agreement.

In regards to policy- and agency-oriented variables, the model included the number of economic development policies used in the community and a situation awareness index. In addition, it included four dummy variables that offered information on whether they have a strategic plan in force, a lead agency that is a public-private partnership, and a lead official that is a full time director; and use supply- or demand-side policies. Consistent with previous research, these variables were expected to be positively related to collaboration (McGuire, 2000). The number of policies indicates how active the community is in that area. This information was obtained asking participants the following: "*Please check each policy listed below that your community uses to encourage development (check all that applies).* The list included 38 economic development policies. See Appendixes B and C for further details.

The situation awareness index was based on the 7-item pre-survey (addressed in section 3.1), to analyze the extent to which communities (or local development officials) are aware of 'what is going on' around them. The index runs from 5 ('not at all aware') to 35 ('extremely aware'). The underlying assumption is that the existence of a certain level of awareness on how dependent a community is on other communities, it influences the willingness to collaborate. This is a factor that has been often neglected in the collaboration literature.

In regards to the four dummy variables, the questions asked were the following:

1. Strategic plan question: *Do you have an updated strategic development plan in force (less than 2 years old)?*
2. Public-private partnership question: *Is the leading economic development agency in your community/municipality a public-private partnership?*
3. Full time director question: *Is the leading development official or manager a full-time director?*

4. Supply- or demand-side policies question: *What are the most popular policies in your community/municipality?*

If respondents answered 'yes' to questions 1 thru 3, their answers were coded as 'one'; and as 'zero' if they responded otherwise. If respondents answered 'demand-side' to questions 4, their answers were coded as 'one'; and as 'zero' if they responded 'supply-side'. See Appendixes B and C for further details.

Research suggests that having a strategic plan and a lead agency that is a public-private partnership are positively related to collaboration (McGuire, 2000).The presence of a full-time director was positively related to collaboration, but the relation was not significant. McGuire (2000) concluded that "cities with the highest reliance on endogenous instruments [demand-side policies] collaborate, on average, nearly twice as much as do the rest of the sample cities." (p. 283)

Norm , *Cohesion,* and *Central* variables were used on the social network analysis (section 3.2.1) and also in the logistic regression to examine their impact on collaboration. It was predicted that the greater the communication and the existence of trust, commitment, and reciprocity, the less costly will be the collaborative transaction. It was also expected that the denser and more centralized a network or a node is, the better the probability of establishing a cooperative agreement. The reason is that cohesive policy networks and those with central actors reduce transaction costs by facilitating information flow, reciprocity and transparency. Furthermore, central actors in a network can be facilitators in a joint venture bringing in trust and a figure of authority with capability of providing good information and experience (Coleman, 1990).

Finally, the descriptive analyses are complemented with a spatial analysis. GeoDa was used to run the spatial analyses. This was performed to identify and discuss clusters found in the data collected; such as clusters of municipalities with joint ventures, development plans, full time director on duty, and centralized networks, among others. This allows us to have a spatial sense of the data, complement data discussions and draw further conclusions.

3.2.3 Exploratory Analysis

The final analytical step represents an effort to explore the extent to which collaboration translates into capacity and consensus building in the local economic development process. This was assessed through a set of 6 items, where the respondents indicated their level of agreement from 1 (strongly disagree) to 5 (strongly agree), thus the additive index ranges from 6 to 30. A sample item was: "*Institutional collective action among communities of the Chicago metro area makes our communities and the region itself stronger*." See Appendixes B and C for further details. It was predicted that a significant number of development officials consider collaboration as an effective policy making tool. In addition, those with denser and more centralized networks are expected to benefit the most from collaboration. A mean difference *t*-test was performed to prove this assumption.

Healey (1998) claimed that collaborative approaches to urban planning build institutional capacity and produce more effective and durable policies. McGuire (2000) suggested that the effectiveness of particular economic development policies is determined by the ability of the development official to successfully search and engage multiple actors in the process. Innes (2004) stated that the presence of authentic dialogue between stakeholders or policymakers encourages collaboration and, ultimately, a healthy consensus building process. Besides, she added that this is true especially in situations of uncertainty and controversy, where the people involved in the process have incentives to collaborate.

CHAPTER 4 ANALYSIS AND DISCUSSION OF SURVEY RESULTS

4.1 Introduction

This chapter presents the results of the analysis together with the interpretation and discussion. First, the survey response rate and an analysis of the differences between the communities that did and did not respond to the survey are discussed. General observations about the participant communities/municipalities are presented next. The section entitled Economic Development Policies discusses the policies that the responding communities/municipalities used to encourage development. This is followed by sections that elaborate and distinguish between communities with and without collaborative efforts; reasons for collaborating or not, and barriers to collaboration. Some of the participants' textual responses regarding the barriers for collaboration are offered. This is followed by a discussion of Spatial Awareness or how knowledgeable are the communities of what is going on around them. The Network Analysis section discusses the different forms of collaboration, as well as quantitative characteristics of the networks. The results from the logistic regression model used to identify and explain the factors that facilitate collaborative efforts are presented in the section that follows. Finally, the last section of this chapter explains the extent to which collaboration translates into capacity and consensus building in the local economic development process.

4.2 Survey Results

Figure 3 is a map of the participant communities/municipalities. Results from the unpaired difference *t*-test showed that the responding communities and municipalities were over-represented by those with an above average median household income and a higher percentage of employment centers (see Table 5). An important finding was that, overall, there were no other significant differences between the responding communities and the others in the study region, in terms of population, diversity, poverty level, average jobs in manufacturing, and levels of formal education.

Figure 3: Maps of response rates and municipalities with and without joint ventures

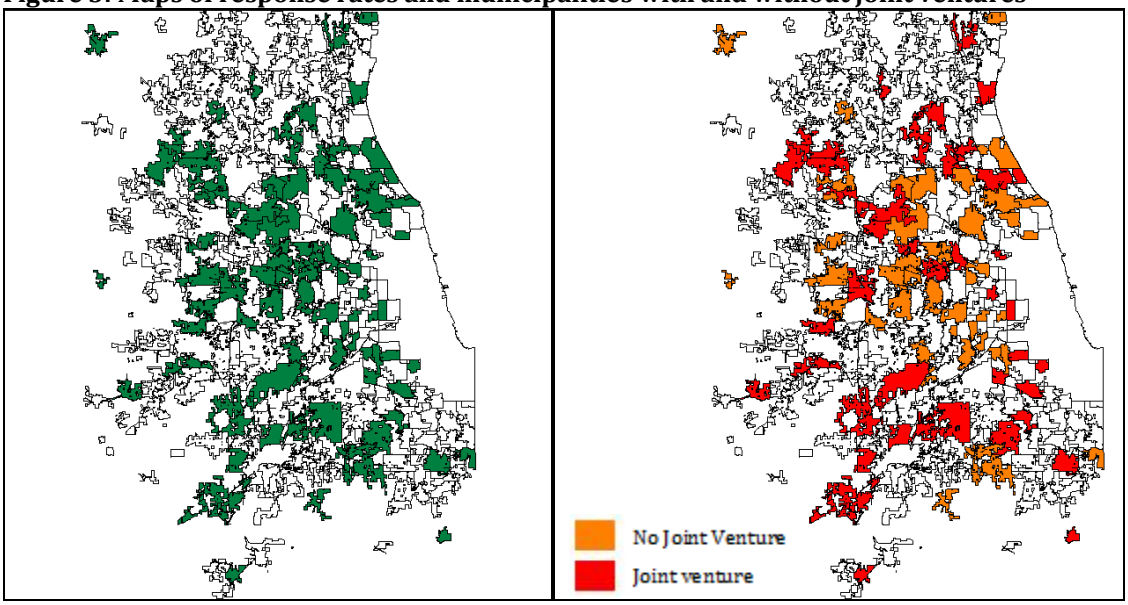


Table 5. Difference in Mean Values of Sample Communities and Region

Joint	Sample[1]	Region[2]
Average population (2010)	22,119	29,793
Lieberson's Index of Diversity	0.3845	0.5164
Average poverty level	6.18	7.69
Average percent jobs in manufacturing	16.14	13.44
Average Median Household Income*	$85,668	$72,789
Average percent of education (bachelor's degree or higher)	38.19	35.24
Percentage of employment centers*	38.46	31.45

[1] 91 communities
[2] 283 communities
**Unpaired t-test, significantly different at 0.05*

The spatial cluster analysis indicated that there were no clusters among the municipalities that responded the survey. This is interesting and somewhat surprising based on multiple clusters and spatial concentration found in the Chicago Metro Area when analyzing industry clusters (CMAP 2007, 2009), accessibility clusters (plenty of or lack of; Pettit and Kingsley, 2013), human capital spatial mismatches (World Business Chicago, 2012), employment subcenters (McMillen, 2003), and even clusters of United Way Partner Communities (United Way, 2013).

4.3 General Observations

Table 6 presents a summary of selected characteristics of the responding communities based on their responses to the survey (see Appendixes B and C for further details). One objective of this study was to identify local governments that engage in collaboration efforts, which represented 49.5 percent of the sample (see Figure 2). In comparison to non-collaborative communities, the communities that engaged in collaborative efforts shared the following characteristics, which were consistent with our expectations:

1. greater awareness of spatial interdependence and interaction;
2. more updated strategic development plans in force (less than 2 years old);
3. more full-time leading development officials or directors;
4. more demand-side policies approaches;
5. more public-private partnership agencies;
6. a larger manufacturing base;
7. less long-term debt;
8. higher levels of poverty;
9. farther from the city of Chicago; and
10. greater awareness of spatial interdependence and interaction;

In addition and also as expected, communities without joint ventures reported having higher median household incomes and levels of formal education, as well as being employment centers. Among the 91 community officials who responded to the survey, 35 were employment centers, and 60 percent of these, were communities without joint ventures. Contrary to expectations, communities with joint ventures (vs. those without) had a larger population size and greater diversity. It was believed that a larger population size would decrease the probability of joint ventures, because larger communities are expected to have more resources and independence (Hawkins, 2007). However, findings suggest that communities with a larger population may have a

Table 6. Summary of Selected Characteristics of Responding Communities

Characteristic	Joint	No Joint	Overall
Responses	45	46	91
Level of Spatial Awareness	25.80	24.02	24.90
Updated strategic development plan in force	15	12	27
Agency is public-private partnership	13	5	18
Leading development official or manager is full-time director	32	21	53
Expect an increase in the development budget	11	13	24
Average frequency of communication (only joint ventures)	2	0	2
Cooperative norms additive index (average)	22.29	24.78	23.55
Demand-side policies	33	26	59
Average population (2010)	23,138	21,121	22,119
Lieberson's Index of Diversity	0.3945	0.3747	0.3845
Average poverty level	6.40	5.96	6.18
Long term debt	$22.4 M	$25.4 M	$23.9 M
Average distance to the City of Chicago	29.71	24.39	27.02
Average % Jobs in manufacturing	17.14	15.16	16.14
Manufacturing among the top 3 industries	35	30	65
Average Median Household Income	$81,180	$90,059	$85,668
Average % of education (bachelor's degree or higher)	33.33	42.94	38.19
Employment Centers	14	21	35

N = 91

greater need to exchange resources (Clingermayer and Feiock, 1990). Although it was expected that similar communities may find it easier to coordinate collaborative efforts; these findings suggest that dissimilar communities may find it important to communicate and collaborate in order to take advantage of their diverse population and economies.

Interestingly, communities without joint ventures scored higher on the Cooperative Norms Additive Index, compared to communities with joint ventures. Cooperative norms indicate the extent to which parties usually act in a collaborative fashion because of the existence of certain levels of trust, commitment, and reciprocity (Hawkins, 2007; Olberding, 2002). The index measured the perceptions of regional intergovernmental relations and, unexpectedly, the results suggest that communities without joint ventures have more positive perceptions about collaboration than those with joint ventures. It is possible that these communities may be

interested and willing to collaborate, but do not have a joint venture because of reasons out of their control or characteristics that may not be attractive to other communities. Among those communities with a joint venture, the average frequency of communication to discuss economic development issues was 3-10 times a year.

These general observations are consistent with the expectations of the logistic regression model discussed in chapter 3.2.2. However, it is important to test whether these variables are significant predictors and not mere or insignificant trends among communities engaging in collaborative efforts. Section 4.11 discusses the results from the logistic regression analysis.

4.4 Spatial Observations

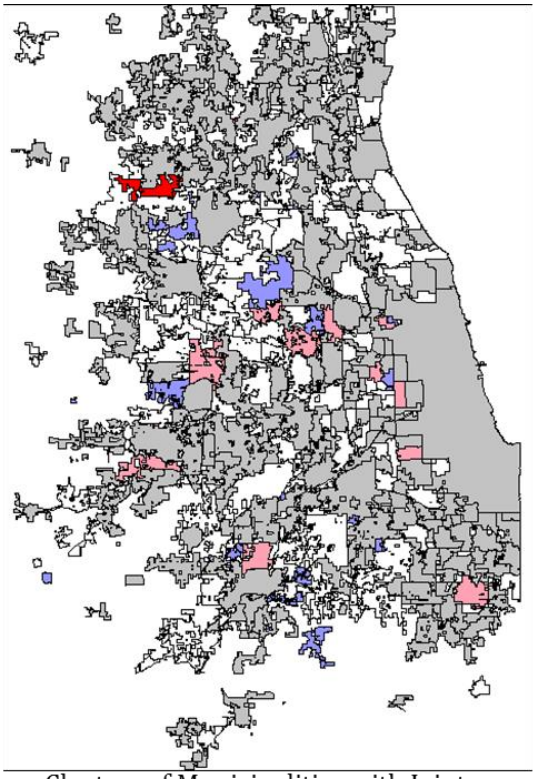
Most of the data by municipality obtained from the surveys were mapped in GeoDa to explore spatial trends. In particular, seven of the variables exhibited some interesting trends. Six of them are included in this section, including clusters of municipalities with joint venture, cluster of municipalities with development plans, cluster of cooperative norms, clusters of development active communities, clusters of municipalities with full time director, and clusters of centralization among communities. The seventh variable, Awareness, is addressed later on this chapter because this topic is part of our research questions directly and thus, it is discussed in section 4.9. Figures 4a, 4b, 4c, 4d, 4e and 4f display the cluster maps of the first six variables. All the cluster analyses were run without non-respondent communities (showed in gray) to avoid influences in the spatial autocorrelation outcomes. The analyses were performed with 9,999 permutations and a significance index of $p = 0.05$.

It was expected to observe defined clusters of collaboration predictors due to the defined spatial trends in the population of the Chicago Metro Area, characterized by a spatial agglomeration of two important socioeconomic variables: income and population. The Chicago metro area exhibits clear segregations of income and race, with the northern suburbs being relatively more affluent than the southern suburbs. The city is segregated with the majority of the population in the

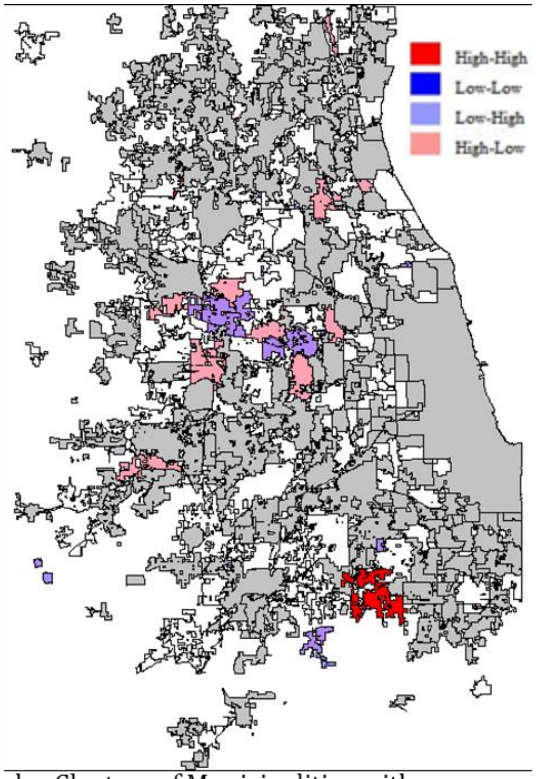
north being White, and primarily Black in the south. Moreover, in the western area there is a large non-English-speaking population that is primarily Latina/o. The geographical distribution of race is largely a result of Chicago's historical housing allocation policy, that forced its Black population into the cheaper Chicago South Side. Besides, as the population of Chicago itself has gradually fallen, the population of its wider metro area has grown. This represents both, a natural growth in those areas and a gradual outward move of the city's workforce into the surrounding suburbs. Other related variables, such as higher levels of formal education and better quality of life, are predominant in the more affluent northern areas. So, given the spatial trends with these variables, positive spatial autocorrelations or various clusters of collaboration predictors were expected in either of these regions of the metro area.

The spatial cluster analysis showed negative spatial autocorrelations; suggesting patterns of differences among neighboring areas (see Figures 4a, 4b, 4c, 4d, 4e, and 4f). The resulting maps describe Low-High (low values surrounded by high values) and High-Low (high values surrounded by low values). These results contradict expectations based on the income and population geographical distribution of the communities in the Chicago Metro Area. However, population size and economic development efforts are not homogenous, making the suburbs different from their neighbors, even if they share a common racial composition and income level. Within the suburbs, there is a good mix of employment centers, which are likely to be surrounded by bedroom communities. Employment centers have the resources to support more vibrant, dynamic, and active economic development departments; in contrast with bedroom communities that do not need a leading agency, a full time director, or a comprehensive budget and plan. Bedroom communities are primarily comprised of residential areas available and accessible to employment centers' employees. Therefore, it is rare to observe positive spatial autocorrelation clusters among variables or predictors of economic development.

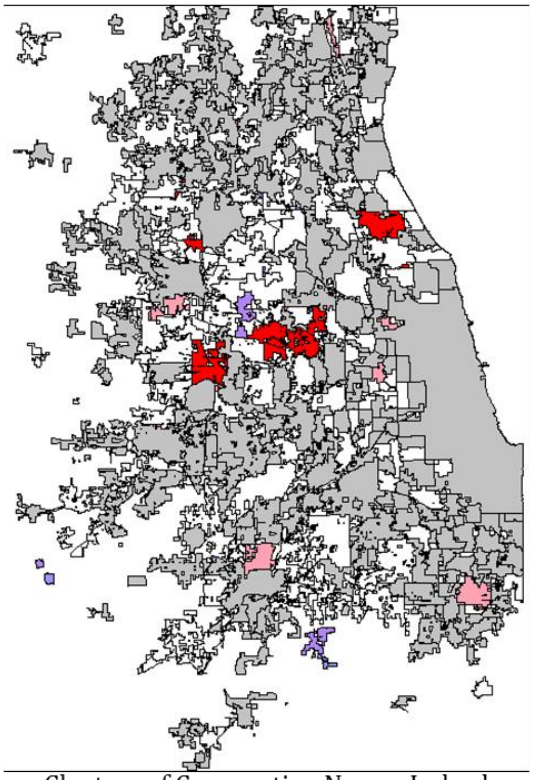
Figure 4: Clustering in survey responses:



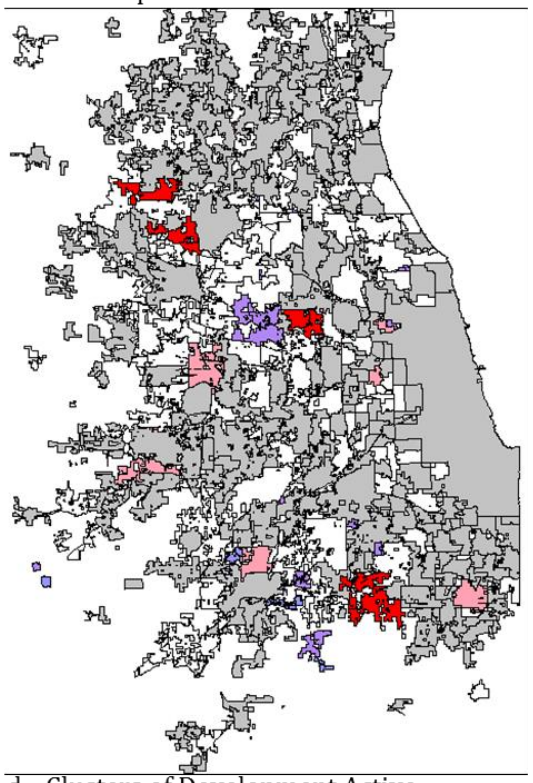
a. Clusters of Municipalities with Joint Ventures



b. Clusters of Municipalities with Development Plans

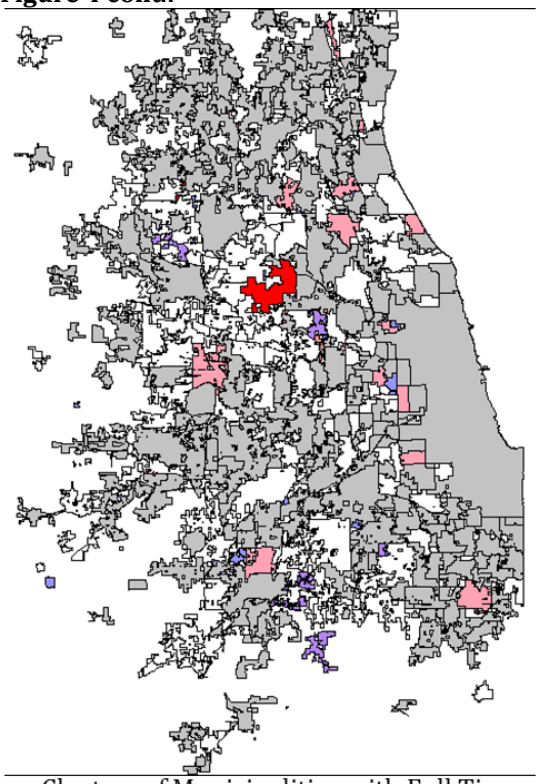


c. Clusters of Cooperative Norms Index by Municipality

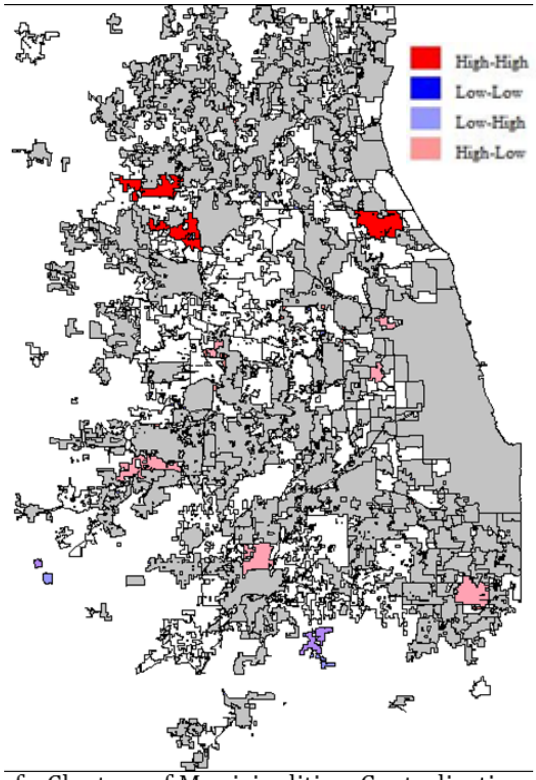


d. Clusters of Development Active Municipalities

Figure 4 cont.:



e. Clusters of Municipalities with Full Time Directors



f. Clusters of Municipalities: Centralization

Figure 4a depicts clusters of communities with joint ventures. The only positive spatial correlation found was among a few small communities in the Northwest that are relatively far from the city of Chicago. This was consistent with expectations that farther geographical distance from Chicago, small population size, and little diversity would be related to an increased probability of establishing collaborative efforts. In addition and in this particular case, clustering is linked/dominated by pairs of relationships. Three communities in that area not only have joint ventures, but many of those are between each other.

Larger communities and governments are expected to have more resources and independence and, therefore, be less likely to collaborate. Moreover, the communities in the Northwest tend to be less diverse, making it easier to coordinate collaborative efforts. Because coordination may represent a transaction cost, it is more complicated to coordinate among dissimilar communities, particularly when they are economically dissimilar. This explains the predominance of the negative

spatial autocorrelations depicted in Figure 4. Besides, there is problem of adjacency when surrounding communities may be non-respondents or when the joint venture is coordinated or governed by a third party organization that have multiple cities around the region engaged in the joint venture. Also, collaboration in some communities is not spatially adjacent. Some communities collaborate with other communities far from them for convenience, common targets or simply because of self-selection of communities neighboring, e.g., bedroom communities.

Municipalities with an updated economic development plan are also scattered, but a hot spot (group of communities with a plan) can be observed in the South, an area characterized by high levels of poverty (see Figure 4b). In many cases, this can be a predictor of more active economic development . Poor areas and with severe fiscal stress may not be attractive to other more affluent and competitive areas. However, if they are surrounded by similarly distressed communities, they may be more flexible and open to collaborate and create economic development plans to improve their current status. This can be facilitated if community members are willing to actively collaborate in improving welfare of the region. Nonetheless, this is the only positive spatial autocorrelation pattern observed across the different maps in Figures 4. Negative spatial autocorrelations were more prevalent given the dissimilarities among most of the suburban communities, and the reasons already discussed above.

Figure 4c is somewhat different from other maps, evidencing clusters with positive spatial autocorrelations and "hot spots," specifically concentrated in the central-north region nearby the O'Hare International Airport. The map shows a cluster of high collaborative norms in the central region and in the East, right above the city of Chicago; and this is another case of clustering linked by dominating pairs of mutual neighboring relationships. Given their proximity to the airport as their main economic engine, these communities shared several characteristics, including joint transaction-specific investments, observability, transportation and environmental profiles and challenges, residents that primarily work at the airport or at airport-related jobs, and demographic

homogeneity. The communities farther from the airport (towards the East and towards the North) may share similar characteristics related to few but strong industry clusters in their regions. On the other hand, these hot spots are very collaborative communities but with different joint ventures across the region, not necessarily between themselves.

In regard to the total number of development policies (see Figure 4d), four small clusters of very active communities were found in the South, Northwest, and center-North regions. The South cluster is the same one found when identifying communities with an economic development plan, and mainly based on joint ventures with farther communities and small projects among the neighboring municipalities. These communities are organized, share some common distresses, and are more flexible and willing to put together different ideas to advance their development and improve their condition. The Northwest clusters or "hot spots" is the same one found when identifying communities with joint ventures. These communities are similar in their demographics, income, accessibility, governance, industrial composition, and distance from the city. They cooperate between themselves. The other cluster of communities using development policies was found in the center towards the North, close to the airport. These communities are likely to be active in their economic development efforts due to their proximity to the airport. However, there joint ventures are characterized by collaboration with other municipalities outside that zone.

Figure 4e depicts similar patterns of negative autocorrelation in regards to having a full-time development director. The only "hot spot" was found in the central metro area where there were a few communities similar in size and economic complexity. These communities required a more defined structure of their economic development efforts and someone leading them in that process. They collaborate between themselves.

Figure 4f depicts network centralization. Clusters of high centralization are found in the Northeast and Northwest regions (the same "hot spots" as in developing active municipalities). Network centralization measures the extent to which the network supports or is dominated by a

single node. It requires high levels of organization and structure, as well as common projects under an umbrella organization (e.g., an industry, a development agency, or the Chamber of Commerce) or without an umbrella. "Hot spot" communities share these characteristics. These communities in the "hot spots" collaborate having a central actor or in this case, a central neighbor. Clustering is again linked/dominated by pairs of relationships and one of these communities is the one linking the rest of them. These spatial trends generate interesting ideas to better understand collaboration and economic development, thus, these findings will be addressed in subsequent sections to elaborate in further results.

4.5 Economic Development Policies

An important discussion in this study is about the policies that the responding communities use to encourage development. Participants identified their community policies from a list of 38 based on previous research (Hawkins, 2007). Participating communities were likely to focus on policies related to locality, mainly aimed at improving the community's attractiveness to industries and development potential. Table 7 shows that the top three policies identified were roadway infrastructure expansion, inventory of developable land, and land use planning for industry. In fact, these are traditional development policies that are politically attractive and socially popular. The so-called first and second waves development strategies discussed in table 2, section 2.3, are very much alive among the most popular responses. For example, among the top 10 policies were industrial and commercial site promotion and tax abatement to businesses; while the top 15 included land acquisition and assembly, water distribution, and policies focused on improving a community's capacity to support industries. These policies are typical of export base and growth pole theories (see Table 3, chapter 2.4). Therefore, most of the surveyed communities adopt place-based initiatives focused on enterprise zones, business improvement programs, infrastructure and neighborhood investments, and urban development (Bolton, 1992; Glaeser, 2000).

Table 7. Local Policies to Encourage Development

Rk	Policy	n	Pct.(%)	Rk	Policy	n	Pct.(%)
1	Roadway infrastructure expansion	55	60.44	23	Lobbying	25	27.47
2	Inventory of developable land	54	59.34	24	Job training for workforce	21	23.08
3	Land use planning for industry	52	57.14	25	Tourism development	21	23.08
4	Marketing brochures	50	54.95	26	Business linkage program	19	20.88
5	Special events planning	47	51.65	27	Job linkage program for residents	18	19.78
6	Business liaison committees	46	50.55	28	Historic/cultural development	17	18.68
7	Industrial/commercial site promotion	45	49.45	29	Purchase advertisements	16	17.58
8	Site development	43	47.25	30	Affordable housing construction	15	16.48
9	Tax abatements to businesses	43	47.25	31	Low interest loans to businesses	15	16.48
10	Solid waste collection	42	46.15	32	Developing industry cluster strategy	14	15.38
11	Trade shows	42	46.15	33	Non-profit organization development	10	10.99
12	Visits to prospective firms	39	42.86	34	Leadership development	8	8.79
13	Land acquisition and assembly	38	41.76	35	Public health programs	8	8.79
14	Water distribution	37	40.66	36	Entrepreneurship training	7	7.69
15	Utility management	35	38.46	37	Solicit foreign business	5	5.49
16	Regional promotion activities	35	38.46	38	Export assistance program	3	3.30
17	Inspection/code enforcement	34	37.36	39	Other: TIF	3	3.30
18	Improved/expanded parking	33	36.26	40	None of the above	3	3.30
19	Recreation amenity development	30	32.97	41	Other: Redevelopment Agreements	2	2.20
20	Rehabilitation of buildings	30	32.97	42	Other: Housing Incentives	1	1.10
21	Sale of land	28	30.77	43	Other: Enhancement Grant	1	1.10
22	Revenue sharing	28	30.77				

Based on current research, it was expected that surveyed participants would report more integrated strategic planning initiatives, beyond the third wave policies discussed in Chapter 2.2 (Blakely and Bradsahw, 2002; Blakely and Green-Leigh, 2009; Bradshaw and Blakely, 1999; Eisinger, 1998; Stimson et al., 2002; and Florida, 2002). These included policies focused on social quality of life, sustainability, regional collaboration, workforce training, human capital development, public-private partnerships, and ad-hoc market-based initiatives. Specifically, it was expected that surveyed communities would endorse the following policies: job training for workforce, job linkage programs for residents, historic and cultural development, non-profit organization development, leadership development, and entrepreneurship training. However, less than 25 percent of the surveyed communities actually endorsed them; while less than 10 percent used leadership development and entrepreneurship training policies, among others. These

findings, however, are consistent with suggestions that the waves or phases of economic development are cumulative, rather than evolutionary (Reese and Ye, 2011).

Going back to the most popular policies to encourage development as shown in Table 7, the top responses by the surveyed communities are consistent with survey findings from the ICMA (1999, 2004, 2009). In their recent survey, the ICMA (2009) reported that policies related to infrastructure, trade shows, and promotional activities were used by more than 50 percent of the surveyed communities. Moreover, more than 40 percent of their respondents reported partnering with other communities or municipalities, which is consistent with the 49.45 percent of joint ventures reported in this dissertation.

As discussed in Chapter 2, there is a recent trend of regions increasingly adopting demand-side development strategies, compared to supply-side strategies. Therefore, the expectation was that surveyed communities would also follow this trend. Findings supported this expectation with 64.84 percent of the communities reporting that demand-side policies are the most popular in their region.

4.6 Communities with Joint Ventures

Forty five of the participating communities reported having joint ventures for economic development purposes. About a third of the joint ventures were established between 2 and 5 years ago, 26.67 percent more than 5 years ago, 22.22 percent less than 2 years ago, and 17.78 percent are currently being established. Forty percent of the joint ventures had a governing board that met an average of 3 to10 times per year to discuss the collaborative efforts, along with their costs and benefits. Meetings discussing the rules governing the joint ventures were less frequent. These communities were likely to establish legal terms of agreement (68.89 percent), although face-to-face agreements were also common (44.44 percent), followed by written agreements (28.89 percent), and phone agreements (17.78 percent).

It was also important to identify the reasons why communities establish joint ventures, which survey respondents identified from a list of 12 items. Table 8 presents the frequency of responses and the percentage of endorsements for each item. Results indicated that the reasons for establishing joint ventures vary. The top three reasons identified included to improve the city's economic advantage (56.56 percent), secure resources that the city cannot obtain otherwise (42.22 percent), and implement problem- solving activities (40 percent). Understanding collaboration as an advantage for advancing economic development is consistent with literature suggesting that spatially interdependent communities should share resources for the welfare of the local economies (Bradshaw, 1993; Hawkins, 2007). Communities are likely to collaborate with others that can enhance their potential for economic growth, in order to reduce costs and become more efficient (Hawkins, 2007).

Securing resources that the communities cannot obtain otherwise is also a common motivation to collaborate (Post, 2004). For instance, securing resources to address common issues like traffic congestion, environmental problems, criminal activity, emergency services, and unemployment, may represent a benefit of collaboration. Additionally, other identified reasons for collaborating, such as decreasing service delivery costs (24.44 percent) and addressing the actions of other communities that are harmful (11.11 percent) are examples of the benefits of collaborating when addressing common issues.

Implementing problem solving activities was the third most popular reason for establishing a joint venture. Collaboration is done to solve problems that span jurisdictional boundaries. The key institutional actors of these communities often have to reconcile divergent interests in order to address complex and interrelated environmental, public health, economic, and social problems in local communities. In the Chicago Metro Area, rapid population growth, the tight fiscal environment, externalities such as traffic congestion and environmental problems are examples of

Table 8. Reasons for Establishing a Joint Venture

	#	%
To improve your city's economic advantage	25	55.56
To secure resources that your city cannot otherwise obtain	19	42.22
To implement problem solving activities	18	40.00
State/federal incentives	13	28.89
To attain public visibility, goodwill or prestige	12	26.67
To decrease service delivery costs	11	24.44
To increase scale economies	10	22.22
Government management is improved	8	17.78
To address the actions of other communities that are harmful to yours	5	11.11
Third party agreed to oversee the agreement	5	11.11
None of the Above	4	8.89
Change in political climate	3	6.67
External fiscal pressures, including restrictions placed on raising revenues	1	2.22

those problems. Establishing joint ventures may be a mechanism to address these negative externalities (OECD, 2012).

The main three reasons for collaborating are consistent with findings from a similar study (Hawkins, 2007); however, implementing problem solving activities was ranked fourth in the other study, just below increasing scale economies, which was ranked seventh (22.22 percent) in this study. However, this study is focused on one metro area, whereas Hawkins (2007) focused on different metro areas across the U.S. Prestige and good reputation have also been supported in the literature (Gulati, 1998), and 26.67 percent of survey respondents identified attaining public visibility, goodwill, or prestige as one of the reasons for establishing joint ventures. Gulati (1998) and Hawkins (2007) stressed that collaboration make elected officials more visible as agents of change in their communities, especially those undergoing fiscal stress.

In order to assess the existence of collaborative norms among communities with joint ventures, officials from collaborating communities were asked to complete the Cooperative Norms Additive Index. The average score was 22.29 (out of a maximum of 35) and participants' responses are displayed in Table 9. Most of the statements were endorsed as occurring "sometimes" and

Table 9. Perceptions of intergovernmental relations for communities with joint venture
Count numbers (percentage)

	Never	Rarely	Sometimes	Usually	Always
Local governmental officials in the Chicago metro area are committed to positive change for the entire region.	0 (0.00%)	7 (15.56%)	20 (44.44%)	17 (37.78%)	1 (2.22%)
In the Chicago metro area, it is expected that local officials in one jurisdiction keep those in other jurisdictions informed of changes that may affect them.	1 (2.22%)	18 (40.00%)	18 (40.00%)	8 (17.78%)	0 (0.00%)
Local governmental officials from different jurisdictions in this region fulfill promises and commitments they make.	0 (0.00%)	2 (4.44%)	20 (44.44%)	21 (46.67%)	2 (4.44%)
Economic problems in the Chicago metro area are addressed jointly by local officials across the region.	2 (4.44%)	14 (31.11%)	21 (46.67%)	8 (17.78%)	0 (0.00%)
Local officials from various jurisdictions across this region frequently communicate face-to-face with one another and/or via phone calls or email.	0 (0.00%)	7 (15.56%)	15 (33.33%)	22 (48.89%)	1 (2.22%)
In the Chicago metro area, local governmental officials from different jurisdictions trust one another.	0 (0.00%)	4 (8.89%)	23 (51.11%)	18 (40.00%)	0 (0.00%)
After receiving resources from other local governments, communities provide equal or more resources in return.	2 (4.44%)	5 (11.11%)	16 (35.56%)	21 (46.67%)	1 (2.22%)

"usually." Results suggest that there are significant levels of trust among the communities that are collaborating, commitment to work on issues that result in joint benefits, and reciprocity in exchange relations among economic development officials.

Policies prevalent in collaborative efforts are important in describing communities with joint ventures. From the list of 38 policies (Section 4.5), respondents identified the ones representing the most recent collaborative efforts. The top five policies are depicted in Table 10 and are consistent with previous studies (Hawkins, 2007). These policies are rooted on the export base theory aimed at improving the community's attractiveness to industries. Among the applications of this theory, are industrial recruitment and promotion, as well as efficiency improvement through infrastructure upgrades. These applications underlie the resulting top-ranked policies from the survey responses. Other applicable theories explaining the selected policies include growth pole

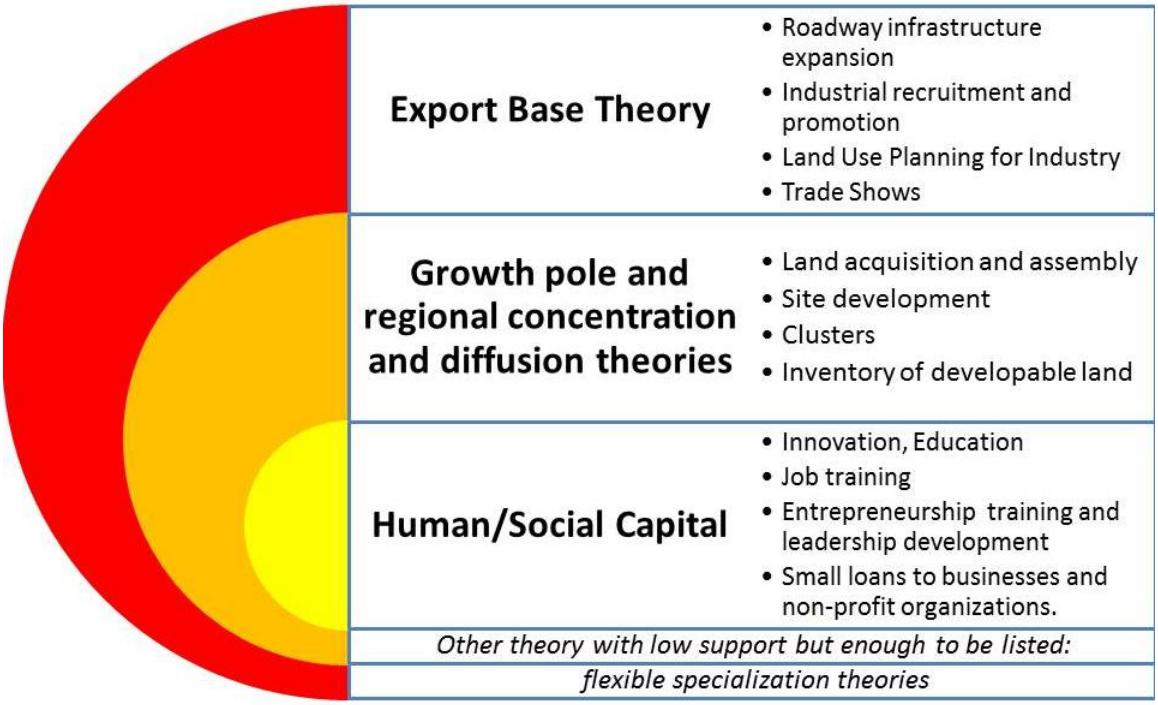
Table 10. Local Policies of Cooperative Efforts to Encourage Development

Rk	Policy	n	Pct. (%)	Rk	Policy	n	Pct. (%)
1	Roadway infrastructure expansion	18	40.00	21	Developing industry cluster strategy	4	8.89
2	Land use planning for industry	14	31.11	22	Visits to prospective firms	4	8.89
3	Land acquisition and assembly	11	24.44	23	Affordable housing construction	4	8.89
4	Regional promotion activities	10	22.22	24	Inspection/code enforcement	4	8.89
5	Industrial/commercial. site promotion	10	22.22	25	Lobbying	4	8.89
6	Tourism development	10	22.22	26	Sale of land	3	6.67
7	Site development	9	20.00	27	Solid waste collection	3	6.67
8	Special events planning	8	17.78	28	Improved/expanded parking	3	6.67
9	Inventory of developable land	7	15.56	29	Purchase advertisements	3	6.67
10	Water distribution	7	15.56	30	Solicit foreign business	3	6.67
11	Business liaison committees	7	15.56	31	Public health programs	2	4.44
12	Marketing brochures	6	13.33	32	Rehabilitation of buildings	2	4.44
13	Historic/cultural development	6	13.33	33	Low interest loans to businesses	2	4.44
14	Tax abatements to businesses	6	13.33	34	Export assistance program	1	2.22
15	Utility management	5	11.11	35	Entrepreneurship training	1	2.22
16	Trade shows	5	11.11	36	Job linkage program for residents	1	2.22
17	Job training for workforce	5	11.11	37	Leadership development	1	2.22
18	Revenue sharing	5	11.11	38	Non-profit organization development	1	2.22
19	Recreation amenity development	4	8.89	39	Other: Secure Contracts for Services	1	2.22
20	Business linkage program	4	8.89	40	Other: Housing Incentives	1	2.22

and regional concentration, as well as diffusion theories. Both theories have industrial development as a basic principle and are related to growth center strategies that seek concentration of successful industries. In order to map the survey responses with the theories, Figure 5 depicts a diagram including a set of significant policies mapped within their relevant theories.

Contrary to expectations that human/social capital theories would be popular among communities with a joint venture, policies encouraging innovation, education, and creative workforce were not highly endorsed. For example, job training for workforce was only used by 5 of 45 communities with joint ventures (11.11 percent) and entrepreneurship training and leadership development was endorsed once (2.22 percent). Similarly, policies such as low interest loans to businesses (4.44) and non-profit organization development (2.22), which are related to theories of community economic development, were also unpopular. Finally, developing industry cluster strategies, typical of flexible specialization theories, were also surprisingly unpopular with only 8.89 percent of the respondents endorsing this policy.

Figure 5: Mapping the responses into theories



Some of the survey respondents provided examples intergovernmental agreements. This narrative summary is based on participants' open statements written in the in the surveys and/or in follow-up calls or emails. The purpose is to illustrate how joint ventures advanced the development of some communities.

The respondent from CHI11 noted that localism is strong in that area of the suburbs. However, there have been some agreements in emergency interconnections of water systems, boundary agreements and some tourism initiatives. Besides, the respondent mentioned major regional initiatives such as the extension of Interstate 355, the creation of the "Illiana" expressway, the inland port development, and a third airport. Curiously, the perception from this respondent is that most of the "joint ventures" have been efforts not yet translated into concrete action.

CHI62 filed an application a few years ago with another city to create an Enterprise Zone over portions of both their communities. The Enterprise Zone is a tool that allows each city to offer incentives to businesses that locate in either city. These incentives include sales tax rebates on the purchase of construction materials, property tax abatement, and various job and tax credits. This

program is administered through the state. While they filed that application jointly, they act separately to try and attract businesses to their communities. For the respondent who shared this experience with us, this basically levels the playing field for the two cities when trying to attract new businesses.

CHI37 was the lead agency that participated in a huge intergovernmental agreement to fund a Full Interchange at I-90 and Route 47. The Illinois Route 47 Interchange Project will create more opportunity for continued economic development along Illinois Route 47 and will open up access between the Tollway and a regional north-south transportation route. Currently, existing ramps (constructed in the early 1970's) only provide access for drivers traveling to and from the east on I-90. The new ramps will provide full access in all directions. The project is estimated to cost $69 million with the Tollway funding half the cost, and IDOT, McHenry County, Kane County and CH20 funding the remainder. CH20's financial participation in the project is approximately $5.4 million.

CHI82 formed an intergovernmental agreement with another community along with Lake County of Lake after 2-4 years of meetings. The rationale was an effort to establish a consistent set of development standards and land use policies for a particular geographical area in northern Lake County that centered on the Interstates 94 and 73. Quite simply, in the event that any of the areas within that zone is developed in the future, one set of rules applies. Therefore, a developer cannot play one government off against another in order to obtain the best deal possible. After the establishment of the joint venture and changes in the applicable zoning codes, the bottom fell out of the real estate market.

Few communities shared valuable information though they did not complete the survey. One of them is another example of collaboration. That city serves 12 municipalities with water; 11 with emergency communications, and others with sign fabrication. More traditional in nature, that city delivers fire-rescue services using mutual aid with their neighboring communities and they have sought to expand that effort through a consulting pact with the Chicago Area Mayors' Caucus. This

is an the other examples displayed above suggest that joint ventures seem to be useful and beneficial provided the existence of shared interests, common planning efforts, high cooperative norms, transparency, efficiency (costs and benefits), and some extent of homogeneity.

4.7 Communities without Joint Ventures

The survey responses revealed that 46 communities have not established an intergovernmental joint venture. Table 6 in section 4.3 displays a snapshot of these communities versus those with a joint venture. One of the most surprising findings was that the average cooperative norms additive index is 24.78 for communities without joint venture. This is 2.49 points higher than the score obtained by the group of communities with a joint venture. Table 11 displays the count responses for cooperative norms. Most of the statements were marked as occurring "sometimes" and "usually" as occurred among the responses of the communities with a joint venture. Nonetheless, more respondents without joint ventures marked "always" in comparison with communities with established joint ventures. This suggests that some of these communities without a joint venture have higher levels of trust and they are willing to cooperate with the right scenario and opportunities, or that cooperation in joint venture is for watching each other instead of trusting each other.

Table 12 displays the reasons for not establishing a joint venture, notwithstanding the higher levels of cooperative norms. The main reasons are that they have limited resources to provide needs that might be beneficial to other communities and coordination with other communities is difficult. One of the basic conditions to establish a cooperative agreement is that every part of the cooperation equation obtains benefits. If a community has limited resources then it has nothing to offer to a cooperative agreement. Not coincidentally, some of these communities with limited resources are bedroom communities. For example, CHI38 does not actively engage in development activities because the community is primarily residential and does not pursue non-residential development proposals.

Table 11. Perceptions of intergovernmental relations for communities without joint venture
Count numbers (percentage)

	Never	Rarely	Sometimes	Usually	Always
Local governments fulfill promises and commitments they make to one another.	0 (0.00%)	5 (10.64%)	14 (29.79%)	19 (40.43%)	9 (19.15%)
Local governments carry out their responsibilities and obligations.	0 (0.00%)	3 (6.38%)	5 (10.64%)	23 (48.94%)	16 (34.04%)
Intergovernmental relations are productive and generate benefits that all share.	1 (2.13%)	4 (8.51%)	14 (29.79%)	16 (34.04%)	12 (25.53%)
Local government officials from different jurisdictions trust one another.	1 (2.13%)	10 (21.28%)	17 (36.17%)	16 (34.04%)	3 (6.38%)
After receiving resources from other local governments, communities provide equal or more resources in return.	3 (6.38%)	6 (12.77%)	23 (48.94%)	13 (27.66%)	2 (4.26%)
There is competition and conflict between governments.	1 (2.13%)	7 (14.89%)	18 (38.30%)	10 (21.28%)	11 (23.40%)
Local governments are generally cooperative.	1 (2.13%)	5 (10.64%)	19 (40.43%)	15 (31.91%)	7 (14.89%)

Table 12. Reasons for not Establishing a Joint Venture

	#	%
Your community has limited resources to provide to other communities	22	47.83
Coordination with other communities is difficult	22	47.83
Your community can adequately undertake development efforts by itself	15	32.61
Those development efforts are done by organizations not affiliated with your community	10	21.74
There is no need to secure additional resources	6	13.04
Other: Competition for development	3	6.52
The geographic distance between communities is too great	2	4.35
Other: Do not have an economic development program	2	4.35
Other: Political Reasons	1	2.17
Other: No opportunities this far	1	2.17
Other: Never contemplated/discussed	1	2.17
None of the Above	1	2.17
Other: State's distribution of sales tax revenue	1	2.17

Among those communities that expressed difficulty coordinating with other communities, this coordination issue may be in a similar line of competition for development, which was an item added by 3 respondents (6.52 percent) in the “other” item. Some projects are difficult to coordinate

because of competition, as well as other reasons such a lack of resources. Political reasons may be an underlying factor that influences other reasons indirectly, though it only received 1 response (2.17 percent).

One of the respondents that declined to participate expressed a very interesting viewpoint about cooperation in the Chicago Metro Area that is somehow related to what has been discussed. The statement was that to prove that inter-local cooperation fosters economic opportunity was like proving oxygen is good for breathing, a foregone conclusion. The respondent claimed that the battle everywhere, and especially Chicago, is to encourage municipalities and levels of government to work together. However, it often boils down to a politician's personal relationships and perceived competition. The respondent admitted that the community coordinates with a couple neighboring communities, but with others they avoid all communication. They have no formal partnerships and he/she was very pessimistic in saying that they probably never will have agreements, because they (agreements) are the exception rather than the rule, most often breaking down after the photo-opportunities have been exploited. However, based on the findings obtained through the survey responses, it should be recalled that cooperation/non-cooperation communities were evenly split.

Another popular reason for not cooperating was that those development efforts are often undertaken by organizations that are not affiliated with the community per se. Rather than encouraging development through collaboration with other communities, assistance is obtained from organizations such as the Chamber of Commerce, an economic development organization or bureau that works regionally or at the state level, the county, etc. For example, the participant from CHI01 explained that Choose DuPage is their regional economic development entity that coordinates activities for many of the municipalities in DuPage County. Another example is CHI71 that was awarded a Local Technical Assistance (LTA) grant from the CMAP. CHI71 will receive planning services from CMAP to develop an economic development plan for their Central Business District.

For communities that did not establish a joint venture, the survey respondents were asked to identify the reasons that would increase the likelihood of collaborating. The responses for these communities are presented in table 13. Similar to communities with joint ventures, more than half of the communities noted that if a joint venture would improve their community's economic competitiveness it would increase the likelihood of their community establishing one.

Communities without a joint venture also agree that securing resources that their communities cannot otherwise obtain is another strong reason that would increase the likelihood of collaborating. As discussed before, this supports the conclusions by Post (2004). However, in contrast with the low popularity among the communities with joint ventures (22.22 percent), increasing scale economies is a very important pull factor (44.68 percent) in establishing a joint venture for those that have not done it yet. In parallel to Hawkins' (2007) findings, neither communities that have not established a joint venture nor the ones that have established one, consider third party involvement a major factor. Hawkins (2007) pointed this out as a major reason noted in previous research but neither among his findings nor this research's findings was this important.

A change in political climate was also among the main reasons that increase the likelihood of forming a joint venture. This was not important at all for those with a joint venture. The political climate is deemed to be an obstacle to engage in a cooperative agreement, but once a community has one, then it may become less important. The same happens with external fiscal pressures and decreasing service delivery costs. These are important to improve the likelihood to cooperate but once a community is engaged in a joint venture, it becomes less important. These consistencies and discrepancies among preferences between communities with and without a joint venture are important enough to be noted. These should be considered for policy purposes if governments want to increase cooperation or initiate an intergovernmental joint venture. The reasons for attracting joint ventures are not necessary the same reasons for keeping an existing joint venture.

Table 13. Reasons that Increase Interest in Joint Venture

	#	%
City's economic advantage is improved	30	63.83
Need to decrease costs of service delivery	25	53.19
Resources are secured that your city cannot otherwise obtain	25	53.19
Scale economies are increased	21	44.68
Change in political climate emphasizing more regional cooperation	20	42.55
State/federal financial incentives tied to cooperation	18	38.30
Problem solving activities are implemented	18	38.30
Standard operating procedures are established	16	34.04
Relation is written down in detail	15	31.91
External fiscal pressures, including restrictions placed on raising revenues	15	31.91
City management is improved	13	27.66
Public visibility, goodwill or prestige are obtained	12	25.53
Formal channels of decision making are followed	9	19.15
Environment is protected	9	19.15
Harmful effects from other city actions are mitigated	6	12.77
Pressure from business group interests	4	8.51
Third party oversees the agreement	1	2.13
None of the above	1	2.13

4.8 Obstacles of Cooperation

In section 2.7, the issue of transaction costs was reviewed. There were information costs (transparent information among all participants in a collaborative agreement), agency costs (accuracy in negotiations between agencies and their bargaining agents), negotiation/division costs (how to divide the gains and the costs), and enforcement costs (monitoring and enforcing a collaborative agreement). According to the ICA framework and its Coasian foundation, transaction costs need to be kept low and outweighed by the benefits of collaboration (Feiock, 2007; Feiock, Steinacker, and Park, 2008). Therefore, taking a basic cost-benefit approach, cooperative agreements occur where benefits exceed transaction costs of negotiating, monitoring and enforcing agreement.

Table 14 displays different issues that act as barrier to establishing a joint venture. Transaction costs associated with coordinating and negotiating an agreement are sometimes or usually present.

Table 14. To what extent do the following act as a barrier to establishing joint ventures?
Count numbers (percentage)

	Never	Rarely	Sometimes	Usually	Always
Difficulty formulating rules that govern the agreement	5 (5.43%)	18 (19.57%)	38 (41.30%)	23 (25.00%)	8 (8.70%)
Lack of agreement among communities on development goals	7 (5.43%)	9 (9.78%)	36 (39.13%)	32 (34.78%)	8 (8.70%)
Difficulty dividing up benefits that result from an agreement	5 (5.43%)	13 (14.13%)	50 (54.35%)	17 (18.48%)	7 (7.61%)
Lack of agreement on the ways work/services are to be provided	8 (8.70%)	12 (13.04%)	42 (45.65%)	23 (25.00%)	7 (7.61%)
Potential that some communities will not uphold the agreement	9 (9.78%)	31 (33.70%)	33 (35.87%)	15 (16.30%)	4 (4.35%)

Coordination costs was expected to exist, not only because of the review of literature, but also because it was identified as a top reason for not establishing a joint venture (see table 12, section 4.7). Negotiation costs were also expected. This is after finding that communities tend to focus on locality development policies, mainly aimed to improve a community's attractiveness to industries and development potential. This is extremely costly and transactions are usually complex.

In addition, transaction costs associated with enforcing an agreement are sometimes or rarely present. It is important to note that for all the statements presented in this question (see table 14), the second most popular response was "usually," with the exception of the enforcement costs. When asked if the potential that some communities will not uphold the agreement act as a barrier for collaboration, 35.87 percent marked "sometimes," whereas 33.70 percent marked "rarely." This may be due to the fact that neither communities with joint venture nor communities without it identified third party oversight as a reason for cooperation. Hawkins (2007) cited Ostrom (1998) to claim that third parties mainly exist as a way to monitor and enforce agreements. Therefore, if communities barely noted that third party involvement was a key factor in forming a joint venture, then it is to be expected that they do not consider enforcement costs as a major obstacle with coordination and negotiation costs.

The extent to which there are differences between local governments with a joint venture and those without it in regards to these collaboration obstacles was tested. A difference in means test was used. However, there is not a significant difference between the two groups of local governments in any of the problems that pose a barrier to joint venture formation (see table 15). This is different from the results of Hawkins (2007), who found a statistically significant difference between the two groups in coordination costs and negotiation costs. These differences were attributed to some discrepancies in descriptive statistics such as population, development policies, and so forth.

Before moving on with the rest of the analyses, two examples of obstacles to joint venture formation in the Chicago metro area are provided. One is the creation of a development district around the proposed South Suburban Airport located in eastern Will County. The five communities surrounding the airport and Will County negotiated a land use plan, architectural standards, revenue sharing, and a governing board. This would allow all local governments to have a say in major developments around the airport, eliminating the need for competition and the use of incentives. However, for this to happen, they needed legislation for the authority to impose land use regulations. Although this proposed bill passed in the State Senate, it died in the House since this legislation was erroneously tied with the airport authority bill which became a non-starter.

Other obstacles to joint venture formation were shared by CHI58. The participant claimed that in Illinois, when it comes to economic development, communities are very competitive. The sales tax distribution process is a "winner takes all" system that does not encourage cooperation. Also, many water and sewer systems are community enterprises that do not share capacity very well. The participant remembered that many years ago (in the 1970s), they did establish a service agreement with another community, whereby they serviced a section of that community with sewer treatment, but cooperative agreements like this one have become rare over time. There is a fierce competition for underdeveloped, unincorporated parcels.

Table 15. Barriers to Cooperation between Joint Venture and Non-Joint Venture Local Governments

	Mean Value		Significant Difference†
	JV	No JV	
Coordination/information costs			
Difficulty formulating rules that govern the agreement	3.04	3.19	0.327
Lack of agreement among communities on development goals	3.22	3.32	0.231
Division/negotiation costs			
Difficulty dividing up benefits that result from an agreement	3.00	3.17	0.399
Lack of agreement on the ways work/services are to be provided	3.04	3.15	0.459
Defection/enforcement costs			
Potential that some communities will not uphold the agreement	2.82	2.62	0.166

†*There were no statistically significant differences in mean values between JV and No JV.*

Based on the two examples discussed above, one may suggest that cooperation obstacles transcend beyond competition, coordination and negotiation to a more systematic problem; i.e. bureaucracy and the way the system works. In section 2.7, it was noted that transaction costs associated with cooperative agreements are function of the characteristics of services, characteristics of communities, political institution and policy networks (Feiock, 2004, 2007, 2008; Hawkins, 2007). Evidence in this section suggests that these transaction costs exist. Therefore, the question that remains to be addressed later in this chapter is what factors reduce transaction costs and influence the establishment of joint venture.

4.9 Spatial Awareness

Spatial awareness is the ability to be aware of oneself in space. This is an era of regional cooperation as political boundaries are softened and even ignored to identify surrounding areas with similar economic structure, assets and opportunities (Hewings et al. 2009; Rondinelli et al. 1998). Communities need to be aware of their roles and the roles of neighboring communities in their regional socio-economic structure. This awareness may maximize development opportunities, by knowing one's advantages and disadvantages, similarities and differences in relation to other communities. Table 16 displays the count numbers and percentage of the responses that measure level of awareness on intraregional/intercommunity dependence.

Table 16. Level of awareness on intraregional/intercommunity dependence
Count numbers (percentage)

	Never	Rarely	Sometimes	Usually	Always
Are you aware of how many of your residents work in your community and how many of them work in other communities?	6 (6.52%)	12 (13.04%)	31 (33.70%)	33 (35.87%)	10 (10.87%)
Are you aware of how much your community can be affected by decision making processes in nearby communities?	0 (0.00%)	5 (5.43%)	15 (16.30%)	31 (33.70%)	41 (44.57%)
Are you aware of the (intercommunity) interaction between households the various sectors of economic activity in the region?	17 (18.48%)	14 (15.22%)	22 (23.91%)	22 (23.91%)	17 (18.48%)
Are you aware of if your community is an employment center or a bedroom community?	1 (1.09%)	0 (0.00%)	6 (6.52%)	17 (18.48%)	68 (73.91%)
Are you aware of the characteristics of the flows of goods and services between sectors in your community and other communities within the metro area?	8 (8.70%)	16 (17.39%)	21 (22.83%)	36 (39.13%)	11 (11.96%)
Are you aware of the amount of income your community receives at the expense of other communities and vice versa?	13 (14.13%)	15 (16.30%)	29 (31.52%)	27 (29.35%)	8 (8.70%)
Are you aware of the patterns of spatial interdependence between communities in the Chicago metro area, including yours? (i.e., how dependent on other communities you are)	6 (6.52%)	16 (17.39%)	23 (25.00%)	28 (30.43%)	19 (20.65%)

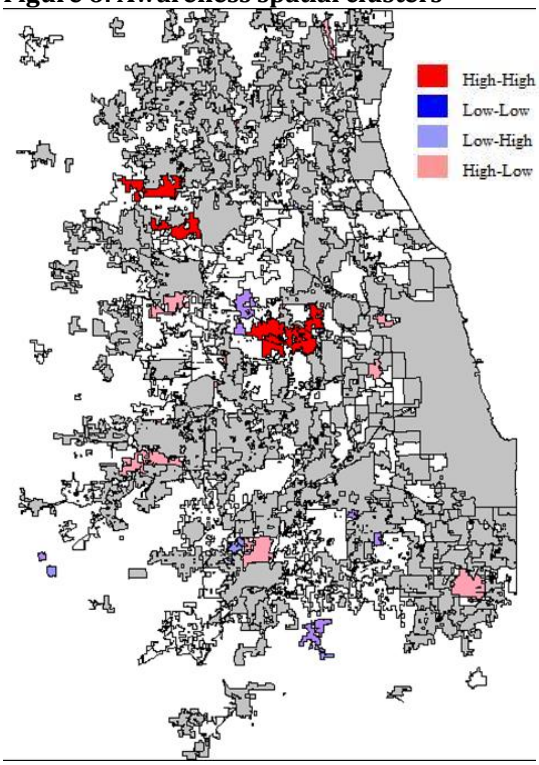
The trending answers for most of the items were "sometimes" and "usually." On the question about whether the community is aware of its role as an employment center or a bedroom community, 73.91 percent answered "always." This was expected, because identifying or perceiving urban communities that are primarily residential versus those that are centers of employment is easier than more complex spatial trends. Actually, knowing whether or not a community is an employment center is crucial for any basic development strategy and urban planning. The other question that was mostly responded as "always" (44.57 percent) was about awareness of how much the community can be affected by decision-making processes in nearby communities. Acknowledging other communities' impacts may motivate them to collaborate or at least to communicate more often than those with lower awareness of that particular situation.

The item where the survey respondents demonstrated a relatively lower awareness level in relation to the other items was about intercommunity interaction between households in the various sectors of economic activity in the region. The combined percentage of responses "never" and "rarely" is 33.70 percent. This was unexpected, because this kind of interregional dependence has been demonstrated empirically in different ways for the Chicago Metro Area as reviewed in chapter 2.6 and 2.7. For example, Hewings and Parr (2007) talked about the process of various products produced by a firm in a local area spreading over establishments in nearby areas as part of a multi-regional operation, thus increasing interregional trade and interregional dependence. They showed how this spatial interdependence process works in the Chicago metropolitan area setting, confirming earlier findings such as in Hewings and colleagues (2001).

Communities should be aware of intercommunity interactions and dependence so that they can take advantage of it. Acknowledging this spatial socio-economic relationship, communities may exhibit more willingness to collaborate with each other to exploit its maximum potential. Unawareness may limit the possibilities of a collaboration mindset. Actually, from a total of 26 respondents that answered "never" or "rarely" of that question, 76.92 percent of them were from communities without a joint venture. Consequently, an unpaired difference in means *t*-test was used to see if lower awareness was seen more in communities without a joint venture than in communities with a joint venture. Although, the mean score of that question for communities without a joint venture was lower (2.89 versus 3.29), this difference was not statistically significant (p-value equals 0.1685).

The spatial awareness additive index was mapped in figure 6 to explore clusters of awareness. A cluster of high awareness levels is found in the central region towards the Northwest (where a positive spatial autocorrelation of cooperative norms were observed) as well as in the Northwest (where a positive spatial autocorrelation of development policies and centralization was found). The same line of thinking was applied to make sense of these clusters. In the central region

Figure 6: Awareness spatial clusters



towards the Northwest, O'Hare International Airport acts as a strong economic engine for the region. These communities are expected to know what is going on among their neighboring communities because are affected by the same sector (air transportation). Most of these communities share time together in meetings and projects as well. In the case of the communities in the Northwest, there are very local but affluent communities with similar interests who know exactly what is happening in the broader geographic area.

A cluster of low awareness is found in the Southeast, precisely in the same region where "cold spots" or clusters of low values were found for cooperative norms, development policies and centralization. Given the characteristics of a region with low education, low income, high incidence of poverty, high crime, lack of community involvement, and other less than positive socio-economic factors, this is not surprising. A region with very few or no development policies, very decentralized (speaking of social capital and networks) and low cooperative norms is expected to be isolated with little appreciation of what is happening in their surroundings in regards to development. They do

not have the human and social capital capacities to develop spatial awareness. The rest of the map exhibits groups of negative spatial autocorrelation as expected due to the difference among the communities on whether they are employment centers or not.

The underlying assumption here is that the existence of a certain level of awareness on how dependent is a certain community on other communities influences the willingness to cooperate. Later in this chapter, the logistic regression model expands on this influence. How awareness act together with other variables to affect the likelihood to cooperate is explored.

4.10 Network Analysis

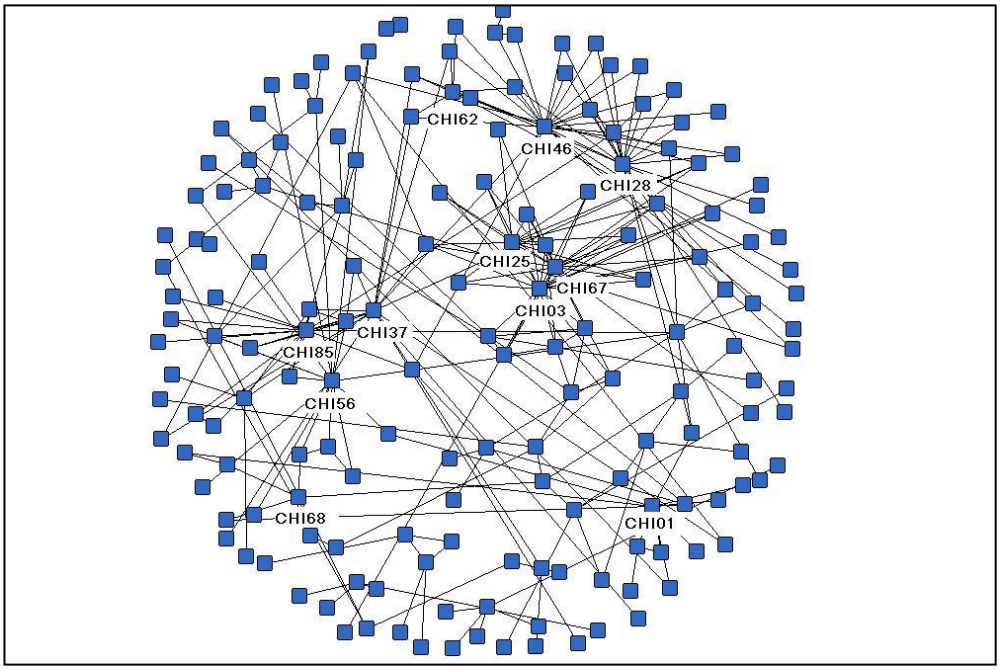
The characteristics of the network structure of the intergovernmental relationships are explored here. Survey respondents from communities with a joint venture were asked to identify the communities that their local government has relied on or collaborated within the last 2 years. Besides, all survey respondents were asked to identify the top 3 government or non-government actors that their local government has relied on the most when carrying-out their community's overall economic development activities in last 2 years. Table 17 displays the summary results for the two networks, community-to-community and community-to-organization.

The size of the network of community-to-community interactions of those with a joint venture is 7,084, which represents the total of uniquely ordered pairs of actors. The density, which is a measure of the level of connectivity within the network, is 0.040; so the actual number of ties present within the network is 4 percent of the potential number of possible ties. The value of the density measure can range from 0 to 1, where 1 represents completely dense network. Therefore, this low value suggests a sparse network (very low cohesion). Figure 8 shows the entire network of intergovernmental joint ventures.

Table 17. 2-Mode Cohesion Measures for Communities and Organizations

	Density	Avg Dist	Radius	Diameter	Fragment	Transit	Norm Dist
MatrixComm2Comm	0.040	5.557	1.000	15.000	0.205	0.643	0.372
MatrixComm2Org	0.020	5.605	1.000	12.000	0.473	0.525	0.509

Figure 7: Network of intergovernmental joint ventures, Chicago metro area



This density is consistent with the densities of the metropolitan areas analyzed in Hawkins (2007). The density of the community-to-community network of the Chicago Metro Area is higher than the density of the community-to-organization network of Boston (0.0294), Miami (0.0322), and Riverside (0.0383) as shown in Hawkins (2007). In that study, the highest densities were exhibited by Salt Lake (0.1384) and Denver (0.1292). Table 18 displays individual measures for every municipality in the community-to-community network of the Chicago Metro Area. The greatest densities were exhibited by the municipalities of CHI46, CHI03, CHI28 and CHI67. Figures 8 and 9 illustrate the networks of these 4 municipalities.

Centrality refers to the position of a node within a particular network. High centralization in a network means that a few nodes are connected with many others, so some members have many more connections in the network. Low centralization means that connections are more evenly

Table 18. 2-Mode Centrality Measures for Communities with Joint Venture

N	Comm	Degree	Closeness	Betweenness	Density	Size
1	CHI01	0.071	0.289	0.117	0.0391	11
2	CHI02	0.013	0.26	0	0.0071	2
3	CHI03	0.142	0.298	0.106	0.0783	22
4	CHI06	0.026	61.25	0	0.0142	4
5	CHI07	0.013	0.205	0.009	0.0071	2
6	CHI08	0.013	18.846	0	0.0071	2
7	CHI10	0.006	0.204	0	0.0036	1
8	CHI11	0.032	0.232	0.057	0.0178	5
9	CHI13	0.026	0.246	0.001	0.0142	4
10	CHI14	0.006	0.212	0	0.0036	1
11	CHI18	0.019	0.231	0.029	0.0107	3
12	CHI19	0.032	49	0.001	0.0178	5
13	CHI22	0.013	0.226	0.006	0.0071	2
14	CHI24	0.013	0.229	0.009	0.0071	2
15	CHI25	0.09	0.276	0.037	0.0498	14
16	CHI28	0.135	0.294	0.103	0.0747	21
17	CHI33	0.019	0.244	0.044	0.0107	3
18	CHI35	0.039	0.292	0.022	0.0214	6
19	CHI36	0.026	0.23	0.012	0.0142	4
20	CHI37	0.097	0.364	0.325	0.0534	15
21	CHI42	0.019	0.182	0.018	0.0107	3
22	CHI44	0.013	0.287	0.002	0.0071	2
23	CHI45	0.026	0.261	0.019	0.0142	4
24	CHI46	0.155	0.35	0.244	0.0854	24
25	CHI48	0.026	0.26	0.065	0.0142	4
26	CHI53	0.026	27.222	0.001	0.0142	4
27	CHI54	0.032	0.177	0.027	0.0178	5
28	CHI56	0.097	0.365	0.219	0.0534	15
29	CHI58	0.013	0.178	0.009	0.0071	2
30	CHI59	0.006	245	0	0.0036	1
31	CHI60	0.019	0.241	0.018	0.0107	3
32	CHI61	0.013	0.234	0.009	0.0071	2
33	CHI62	0.045	0.283	0.018	0.0249	7
34	CHI65	0.039	0.23	0.016	0.0214	6
35	CHI67	0.135	0.298	0.12	0.0747	21
36	CHI68	0.032	0.298	0.119	0.0178	5
37	CHI69	0.013	0.253	0.001	0.0071	2
38	CHI72	0.013	0.22	0	0.0071	2
39	CHI74	0.006	0.141	0	0.0036	1
40	CHI78	0.032	0.291	0.032	0.0178	5
41	CHI79	0.026	0.268	0.003	0.0142	4
42	CHI80	0.032	0.215	0.018	0.0178	5
43	CHI81	0.032	0.238	0.053	0.0178	5
44	CHI82	0.006	245	0	0.0036	1
45	CHI84	0.039	0.255	0.027	0.0214	6
46	CHI85	0.097	0.34	0.143	0.0534	15

Figure 8: Network of intergovernmental joint ventures for CHI46 and CHI28

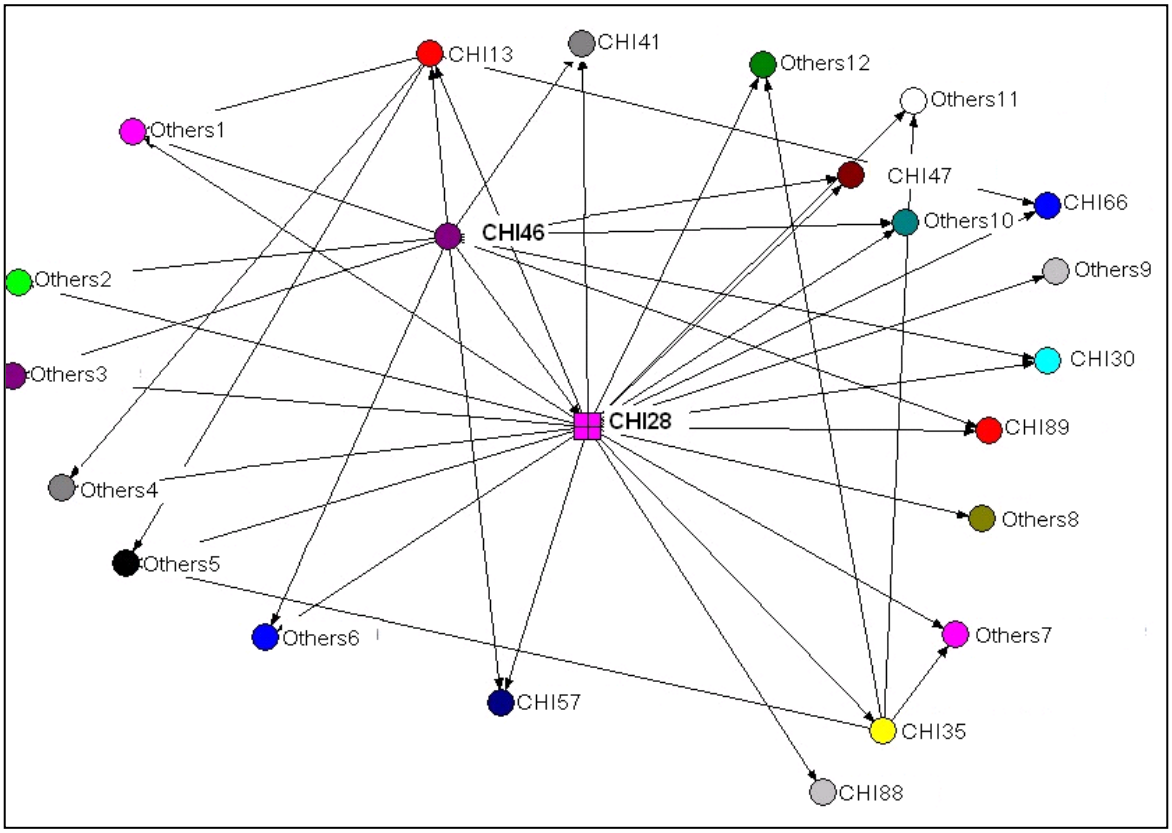
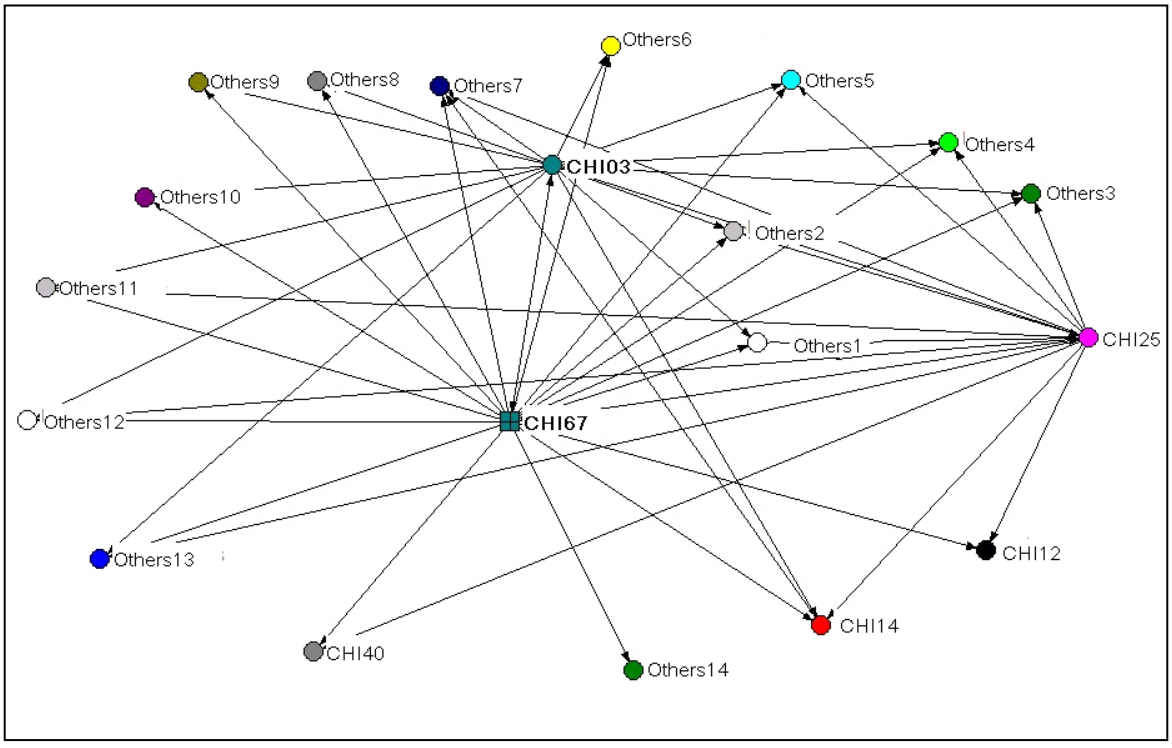


Figure 9: Network of intergovernmental joint ventures for CHI03 and CHI67



distributed. Measures of centrality such as degree, betweenness and closeness for individual municipalities in the network were calculated and also displayed in table 18. For the entire network, a centralization score was calculated for every centrality measure. The score is expressed as a percentage and can vary from 0 (every member is connected to every other member) to 100 (all members are connected to only 1 member).

The degree in a network is the number of connections or edges a node has to other nodes. For this network, the average degree is 1.634 and the network centralization score is 13.156 percent (out-degree) and 1.980 percent (in-degree). This first centrality measure suggests a low centralization and this is what it can be perceived from figure 8 as well. Individually, the municipalities of CHI46, CHI03, CHI28 and CHI67 were the ones with the highest degrees. This may suggest certain leadership strengths from these municipalities in intergovernmental cooperation; a model for better channels of communication in the region.

Betweenness is the extent to which a node lies between other nodes in the network, bridging clusters, connecting actors indirectly through their direct links. It measures the degree to which an entire network is focused around a few central nodes (Carrington et al. 2004; Wasserman and Faust, 1994). For the entire network, the network centralization score is 0.64 percent, suggesting low centralization as found with the degree measures. The municipalities of CHI37, CHI46, CHI56 and CHI85 exhibited the highest levels of betweenness. Actors like these are also important in the network because they connect municipalities. Thus, they are also important for future intergovernmental relations and cooperative agreements.

Closeness is the extent to which an actor is near all other actors in a network. Those actors with the highest level of closeness have certain advantages (power) in the star network; a highly centralized network where 1 node in the center connects to all other nodes. This particular measure was only calculated for each individual member of the network. The municipalities of

CHI59, CHI82, CHI06 and CHI19 exhibited the highest levels of closeness. However, these results have to be analyzed with care because this network is very far from indicating the configuration of a star network. It is completely the opposite. Therefore, this just means that they are connected to only one or very few municipalities in the network.

Community-to-organizations interactions of those municipalities with and without a joint venture were also analyzed. Figure 10 shows a portion of this network, focused on the organizations with the greatest ties. These organizations are (in no particular order) CMAP, Illinois Department of Transportation, Choose DuPage, the International Council of Shopping Centers, the IL Department of Commerce and Economic Opportunities, the Lake County Partners, and economic development organizations of the counties of McHenry, Cook and Will. The size of the entire network is 10,488, whereas the density is 0.020. This density is lower than any of the community-to-organization network cohesion measures in Hawkins (2007), where the lowest density among the metro areas analyzed was Boston with 0.0294.

In regards to the centrality measures of the network, the average degree is 1.025 and the network centralization score is 0.740 percent (out-degree) and 3.725 percent (in-degree). Yet again, this suggests a very low centralization. The network centralization score is 0.01 percent, confirming the very low centralization found with the degree measures. This results are far from comparable to Hawkins (2007), where all the scores greater than 20 percent but lower than 70 percent. This low centralization found in the community-to-organization network in the Chicago Metro Area suggests that the municipalities have a diverse set of resources, entities and/or organizations to rely when carrying-out their community's overall economic development activities. Thus, there is not a centralization of a few organizations that have many more connections than others. Table 19 displays the top 10 individual centralization scores for municipalities and organizations. It shows degree, betweenness and closeness measures.

Figure 10: Network of the connections between the most dominant organizations and municipalities

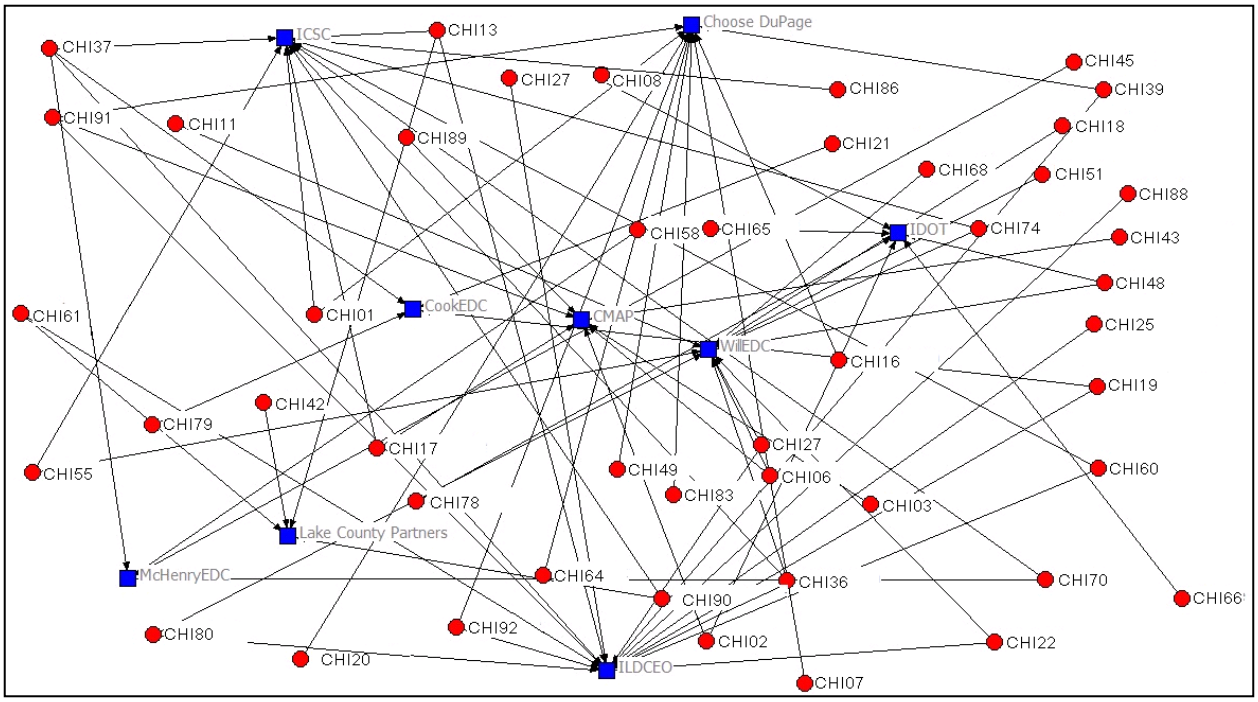


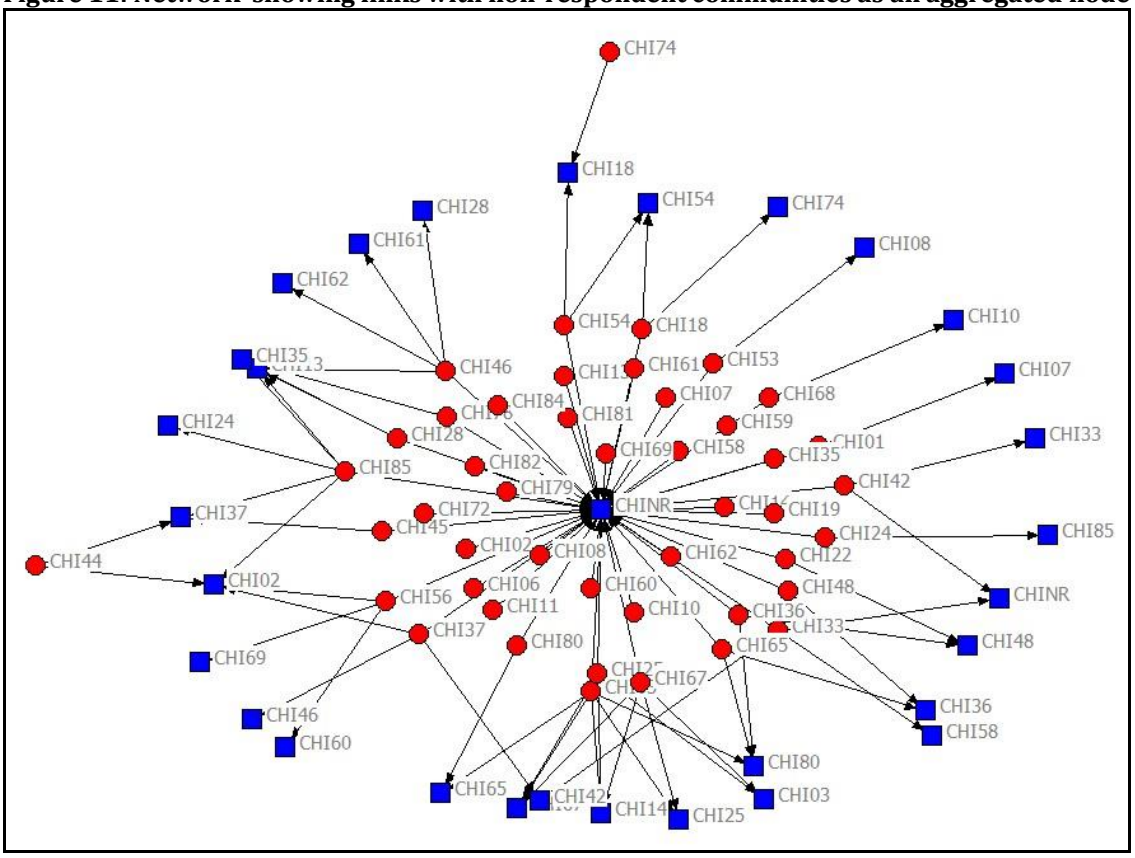
Table 19. 2-Mode Centrality Measures for Communities and Organizations

Municipality	Degree	Closeness	Betweenness
CHI17	0.026	0.513	0.08
CHI60	0.026	0.493	0.071
CHI27	0.026	0.458	0.07
CHI37	0.035	0.496	0.062
CHI91	0.026	0.52	0.053
CHI48	0.026	0.406	0.047
CHI02	0.026	0.422	0.04
CHI30	0.026	0.372	0.033
CHI36	0.026	0.526	0.031
Organizations	**Degree**	**Closeness**	**Betweenness**
ILDCEO	0.163	0.596	0.212
ICSC	0.12	0.585	0.145
WillEDC	0.13	0.522	0.131
Local Chamber of Commerce	0.098	0.515	0.119
CMAP	0.076	0.549	0.099
Choose DuPage	0.109	0.527	0.077
IDOT	0.065	0.412	0.076
Cook County	0.054	0.435	0.07
Kane County	0.043	0.437	0.061
McHenryEDC	0.043	0.438	0.042

The absence of centrality in a community-to-organization network may be negatively influential for the creation and success of cooperative agreements. A central actor in a network like this can be considered a key organization in overcoming collective action problems and coordinating economic development more effectively. Moreover, central actors are important for better information flow, exchange of ideas, a mediator for communication between other actors and a perception of organization and structure. Although, there are top umbrella organizations like CMAP and Choose DuPage, among others, which exhibit the higher centrality scores, these were not perceived as highly reliable by the municipalities as expected. More "centralized" organizations may be more on a very local scale rather than regional, like the local chamber of commerce, a neighboring community, or a local business, which do not promote a more regional collaborative environment.

An additional network analysis was run by adjusting the network to show links with non-respondent communities as an aggregated node – recalculating the network indices but with caution about extrapolation to the whole community space (Figure 11). The rationale is to explore the influence of the non-respondent communities as a whole in the network and to have an idea on how much the network may change by increasing the response rate with specifically these communities mentioned by the respondents but not surveyed in this study. The density of this network is 0.069; so the actual number of ties present within the network is 6.9 percent of the potential number of possible ties. This is 2.9 percent higher than the regular network discussed above. The average degree is 1.935, which is 0.301 higher. However, the network centralization scores are much lower, 0.92 percent (out-degree) and 0.933 percent (in-degree). The non-respondent node is a receiver but no information is available of the links going out from this node as these communities were not surveyed. Nonetheless, it is safe to suggest that the input from those "non-respondents" communities will be very useful and will make the network stronger and more cohesive. Evidently, those communities are engaging in collaborative actions and may offer valuable inputs.

Figure 11: Network showing links with non-respondent communities as an aggregated node



4.11 Logistic Regression

Based on previous research by Hawkins (2007) and McGuire (2000), a logistic regression model was proposed to test the extent to which a combination of factors determines intergovernmental cooperation (see chapter 3.2.2). The statistical package STATA SE 10.0 was used to perform this part of the analysis. However, sample size is an important issue in this dissertation. Any logistic regression had to be run with 91 observations out of the 283 expected from the study area. Therefore, the model specified in equation 7 had to be modified.

The following steps were performed to specify alternative models. First, an appropriate number of covariates (the number of independent variables) was used for the alternative logistic regression models based on the sample size. Peduzzi and colleagues (1996) suggested a formula for this purpose: $N = 10k/p$, where N is number of cases, k the number of covariates and p the smallest of the proportions of negative or positive cases in the population. Hence, in the current case, simple

manipulation resulted in 91 = 10(k)/0.4945; k = 4.5. Hence, in order to avoid sample size issues in the logistic regression calculations, the number of independent variables should be no more than 5.

Second, variables for municipalities with and without a joint venture were compared, verifying correlations among the variables. Different attempts were made to interact the variables in order to see whether the interaction terms were significant. Some of the inspiration came from the general observations in sections 4.3 and the spatial observations discussed in section 4.4. The only interaction variable that seemed to work was the interaction between the variable '*development active*' with the variable on '*whether or not the community had an updated plan*'. There is a significant interaction between communities with higher number of development policies active and communities with an updated economic development plan.

Third, different logistic regression models were run based on the previous steps to determine which one explains better the likelihood to cooperate in the study area. Then, after running different models, the Akaike Information Criterion (AIC) and the Bayesian Information Criterion (BIC) were used to choose the best models. AIC and BIC can be viewed as measures that combine fit and complexity. Fit is measured negatively by: -2*ln(likelihood); the larger the value, the worse the fit. Complexity is measured positively, either by 2*k (AIC) or ln(N)*k (BIC). Given two or more models fitted on the same data, the model with the smaller value of the information criterion is considered to be better; it has much greater likelihood, explaining the most variance.

Table 20 displays the best five models based on their information criterion. In model 1, the probability of obtaining the chi-square statistic given that the null hypothesis is true is 0.0002, which suggests that the model is statistically significant. Hence, the model can be described as log(p/1-p) = 2.9112 – 0.0230**Edu* + 156.1750**central* – 0.2980**norm*. The coefficient for the variable *Edu* is -0.0230. This means that for a one percentage point increase in the number of residents with a bachelor degree or higher in education, one could expect a 0.0230 decrease in the log-odds of the dependent variable *JV* (communities with a joint venture), holding all other

Table 20. Logistic Regression Models for Likelihood for Joint Venture (Number of obs = 91)

Model 1: $Logodd(JV) = \beta_0 + \beta_1 Edu + \beta_2 Central + \beta_3 Norm$ Log likelihood = -28.867691

LR chi2(3) = 77.95 (Prob > chi2 = 0.0002) Pseudo R2 = 0.6179

JV	Coef.	Std. Err.	z	P>z	[95% Conf. Interval]	
Edu	-0.0230	0.0212	-1.090	0.277	-0.0646	0.0185
Central	156.1750	35.3641	4.420	0.000	86.8627	225.4874
Norm	-0.2980	0.1147	-2.600	0.009	-0.5227	-0.0733
_cons	2.9112	2.4841	1.170	0.241	-1.9575	7.7799
Hosmer-Lemeshow		2.57 (p = 0.4630)	AIC (56.1958)		BIC (66.2393	

Model 2: $Logodd(JV) = \beta_0 + \beta_1 Edu + \beta_2 Central + \beta_3 Norm + \beta_4 DevActive\text{^}Plan$ Log likelihood = -23.730528

LR chi2(4) = 78.68 (Prob > chi2 = 0.0000) Pseudo R2 = 0.6237

JV	Coef.	Std. Err.	z	P>z	[95% Conf. Interval]	
Edu	-0.0225	0.0218	-1.030	0.302	-0.0652	0.0202
Central	151.7906	35.2513	4.310	0.000	82.6994	220.8818
Norm	-0.2965	0.1119	-2.650	0.008	-0.5158	-0.0772
DevActive^Plan	0.0834	0.0626	2.850	0.007	-0.0693	0.1760
_cons	2.3199	2.5058	0.930	0.355	-2.5914	7.2311
Hosmer-Lemeshow		2.52 (p = 0.4723)	AIC (57.4611)		BIC (70.0154)	

Model 3: $Logodd(JV) = \beta_0 + \beta_1 Edu + \beta_2 Central$ Log likelihood = -28.867691

LR chi2(2) = 68.41 (Prob > chi2 = 0.000) Pseudo R2 = 0.5423

JV	Coef.	Std. Err.	z	P>z	[95% Conf. Interval]	
Central	155.0002	35.9597	4.31	0.000	84.5204	225.4800
Edu	-0.0396	0.0199	-1.99	0.047	-0.0787	-0.0006
_cons	-3.2263	1.1365	-2.84	0.005	-5.4539	-0.9987
Hosmer-Lemeshow		1.82 (p = 0.6113)	AIC (63.7354)		BIC (71.2680)	

Model 4: $Logodd(JV) = \beta_0 + \beta_1 Central + \beta_2 Norm + \beta_3 Geog + \beta_4 Dir + \beta_5 Aware$ Log likelihood = -23.052583

LR chi2(5) = 80.04 (Prob > chi2 = 0.0000) Pseudo R2 = 0.6345

JV	Coef.	Std. Err.	z	P>z	[95% Conf. Interval]	
Central	150.1519	35.9036	4.180	0.000	79.7822	220.5216
Norm	-0.3202	0.1111	-2.880	0.004	-0.5379	-0.1024
Geog	0.0387	0.0304	1.270	0.202	-0.0208	0.0982
Dir	0.5316	0.8259	0.640	0.520	-1.0871	2.1502
Aware	0.0876	0.0925	0.950	0.344	-0.0937	0.2690
_cons	-0.8264	3.1899	-0.260	0.796	-7.0784	5.4256
Hosmer-Lemeshow		2.33 (p = 0.5061)	AIC (62.0413)		BIC (82.1281)	

Model 5: $Logodd(JV) = \beta_0 + \beta_1 Aware + \beta_2 Pupri + \beta_3 DevActive\text{^}Plan + \beta_4 SupDem + \beta_5 Dir$ Log likelihood = -51.642801

LR chi2(5) = 22.86 (Prob > chi2 = 0.0004) Pseudo R2 = 0.1812

JV	Coef.	Std. Err.	z	P>z	[95% Conf. Interval]	
Aware	0.0711	0.0500	1.420	0.155	-0.0268	0.1691
PuPri	1.2079	0.6206	1.950	0.052	-0.0085	2.4242
DevActive^Plan	0.0926	0.0369	2.510	0.012	0.0203	0.1650
SupDem	0.7816	0.5171	1.510	0.131	-0.2319	1.7951
Dir	0.7321	0.5018	1.460	0.145	-0.2515	1.7157
_cons	-4.1203	1.4587	-2.820	0.005	-6.9792	-1.2613
Hosmer-Lemeshow		3.88 (p = 0.2745)	AIC (117.9959)		BIC (140.5937)	

variables constant. However, this coefficient is not statistically significant at a *p*-value of 0.05 or even a *p*-value of 0.10. Although it is insignificant, this variable displays a negative sign as expected. An opposite (negative) sign is expected with respect to this variable. It is expected that the wealthier and more educated communities have less need to engage in cooperative efforts. Those communities tend to be more economically independent.

The coefficient for the variable Central, which is a network centralization measure, is 156.1750. Nonetheless, this value should be interpreted with care. One could say that for a one-unit increase in Central, it is expected that there would be a 156.1750 increase in the log-odds of the dependent variable JV, holding all other variables constant. The values of Central are mostly decimals with a minimum of 0.000, a maximum of 0.181 and a mean of 0.039 in the sample. A more realistic interpretation could be that for 0.001 unit increase in Central, it is expected a 0.1561 increase in the log-odds of the dependent variable JV, holding all other variables constant.

As expected, the variable Central has a positive sign. As stated in Hawkins (2007), the denser and more centralized a network or a node is, the better the probability of establishing a cooperative agreement. The reason is that cohesive policy networks and those with central actors reduce transaction costs by facilitating information flow, reciprocity and transparency. Furthermore, central actors in a network can be facilitators in a joint venture bringing in trust and a figure of authority with capability of a good information and experience provider (Coleman, 1990).

The coefficient for the variable *Norm* is -0.2980. This means that for one-unit increase in the cooperative norms additive index, a 0.2980 decrease in the log-odds of the dependent variable *JV*. This is an index with a minimum possible value of 7 and maximum of 35. This variable *Norm* refers to cooperative norms, which indicate the extent to which parties usually act in a collaborative fashion because of the existence of certain levels of trust, commitment and reciprocity (Hawkins, 2007; Olberding, 2002). The expected sign was positive, but a negative sign resulted.

The hypothesis was that a higher cooperative norm index increases the chances for a community to collaborate, mainly because the greater the communication and the existence of trust, commitment and reciprocity, the less costly is the collaborative transaction. However, this does not seem to be the case for the Chicago metro area. The intuition is that the communities in this study area have similar perceptions of cooperative norms, but at the time to engage in intergovernmental collaboration activities there are other factors that favor or impede collaboration. For example, one of the top reasons for not cooperating identified by the communities was that they had limited resources to provide to other communities. The most important factors that will increase the likelihood of cooperating identified by the communities were the improvement of the economic advantage of the city and the need to decrease cost of service delivery. Another factor was the political climate. Therefore, these statements may help to understand these results. Actually, one may suggest that the impact of cooperative norms depends on other factors.

This model was tested for specification errors using the Stata command linktest, with the underlying idea that if the model is properly specified, one should not be able to find any additional predictors that are statistically significant except by chance. After the logistic regression command, linktest uses the linear predicted value (*_hat*) and linear predicted value squared (*_hatsq*) as the predictors to rebuild the model. The variable *_hat* should be a statistically significant predictor, since it is the predicted value from the model. This will be the case unless the model is completely mispecified. On the other hand, if the model is properly specified, the variable *_hatsq* should not have much predictive power except by chance. Therefore, if *_hatsq* is significant, then the linktest is significant. This usually means that either there are omitted relevant variable(s) or the link function is not correctly specified. For this model, though not all the variables were significant, the model is properly specified. In the linktest, the variable *_hat* was a statistically significant predictor, and variable *_hatsq* was not.

This model was also tested for multicollinearity to check if two or more independent variables in the model are approximately determined by a linear combination of other independent variables in the model. The variance inflation factor (VIF – an indicator of how much of the inflation of the standard error could be caused by collinearity) was used to detect any multicollinearity issue. The mean VIF was 1.05 and the maximum was 1.08. Therefore, no problems of multicollinearity were found.

Model 2 was the one displaying the next smaller value of the information criterion (see table 18). In this model, the probability of obtaining the chi-square statistic given that the null hypothesis is true is 0.0000, which suggest that the model is statistically significant. The estimated model is: $\log(p/1\text{-}p) = 2.3199 - 0.0225*Edu + 151.7906*central - 0.2965*norm + 0.0534*DevActive\text{^}Plan$.

The coefficients for *Edu*, *Central* and *Norm* are similar and consistent with the previous model displayed in table 18. Therefore, the interpretation does not vary. The coefficient for the variable *DevActive^Plan* is 0.0834. This means that for communities with an updated plan and highly active in development policies their likelihood to engage in a joint venture with other communities is higher. The model was tested for specification errors and multicollinearity, but no problem was found. The number of economic development policies indicates how active the community is that area. A positive impact was expected on the probability of establishing a cooperative agreement, because the more active a community is in regards to economic development policies, the more resources are available to share and/or use as a collaborative advantage. Furthermore, the communities without joint ventures identified that having limited resources is an obstacle to collaborate with other communities. Communities with more active policies in favor of the local economic development are expected to be willing to use different options to improve its economic health, including collaboration. The same reasoning applies when we talk about having an updated development plan.

Model 3 was the next smaller value of the information criterion. In this model, the probability of obtaining the chi-square statistic given that the null hypothesis is true is 0.0000, which suggests that the model $\log(p/1\text{-}p) = -3.2263 - 0.0396*Edu + 155.0002*central$ is statistically significant. The coefficients for *Edu* and *Central* are similar and consistent with the previous models. . However, the removal of the variable *Norm* made the coefficient for *Edu* statistically significant in this model. Besides, note that the constant is now negative and significant. Neither specification errors nor multicollinearity were found. One can assume that *Edu* and *Norm* are correlated but that is not the case in here. An interaction variable was entered without success. Therefore, just focusing on the significance of *Edu* in this model, the negative sign was expected because communities with more educated residents and employees tend to be more independent. However, based on the narratives from the community leaders who responded the surveys, this factor seems to be an exception rather than the norm.

In model 4, the probability of obtaining the chi-square statistic given that the null hypothesis is true is 0.0000, which suggest that the model $\log(p/1\text{-}p) = -0.8264 + 150.1519*Central - 0.3202*Norm + 0.0387*Geog + 0.5316*Dir + 0.0876*Aware$ is statistically significant. As seen in the first 2 models, *Central* and *Norm* have positive and negative coefficients, and both are significant with similar values. The coefficient for the variable *Geog* is 0.0387. This means that for one-mile increase in the distances from Chicago, a 0.0387 increase in the log-odds of the dependent variable *JV* would be expected. Hence, the farther from Chicago, the more likely a municipality will collaborate. However, this coefficient is not statistically significant. The coefficient for the variable *Dir* is 0.5316. This means that for municipalities with a full-time director in charge a 0.5316 increase would be expected in the log-odds of the dependent variable *JV*. However, this coefficient is not statistically significant either. The same happens for the variable *Aware*; the higher the spatial awareness, the better the chances to collaborate, but no significance was found in this statistic. No problems with specification error or multicollinearity were found.

While *Dir* and *Aware* are statistically insignificant, the signs are positive as expected. Specifically with the variable *Dir*, the findings are consistent with McGuire (2000). He found that the existence of a full-time director is positively related to the level of collaboration by the city, but it was not significant in his formulation. In regards to the variable *Aware*, the underlying assumption was that the existence of certain level of awareness or perception on how dependent is a specific community on other communities should influence the willingness to collaborate. This is the most surprising outcome from this model - the insignificance of spatial awareness as a predictor for likelihood to collaborate. One intuition may be that in Chicago the likelihood to collaborate may come from the need to do so instead of being aware of the advantages to collaborate and with whom to collaborate. Furthermore, as Kim and Hewings (2011) suggests, the fact that the composition of working households is becoming dominated by 2 wage-earners and sometimes 3, together with the longer commuting distances (in most cases interregional), has been changing the geography of interaction. Therefore, even if communities ignore the interdependence, worker-consumers have already embraced it as discussed earlier.

The variable *Geog* was also non-significant but the sign was positive, contrary to what was expected. Hawkins (2007) cites different studies that have shown that location within a metro area influences the extent of economic development policy adoption by local governments. Therefore, the intuition was that geography will increase the probability of establishing a cooperative agreement; a smaller distance to the main economic active area, i.e., the city of Chicago, increased the likelihood of cooperating. The findings show the contrary, suggesting that the farther from the central city the better.

Although the variable *Geog* was not significant, one may suggest that the influence of surrounding communities might have been stronger than just counting on how far a community is from the city of Chicago. The discussions developed in section 4.4 help to understand this outcome better. Recall that as the population of Chicago itself has gradually fallen, the population of its wider

metro area has grown. This is not only due to natural growth in those areas but also to a gradual outward move of the city's workforce into the surrounding suburbs. Communities in these suburbs have grown and developed at a point where they do not depends (solely) on the City of Chicago. Furthermore, these communities have become important employment centers for themselves and nearby communities. So, instead of worrying on how far a specific community is from the City of Chicago, one needs to focus on what is happening in the region and what benefits obtaining community could obtain from being close to the most prosperous neighbors. If a community is too far from the City of Chicago, perhaps the problem is not the distance from the city but it is that their region has not developed well enough or there is no immediate need for strengthening ties.

Models 1 through 4 were the models smallest value of the information criterion among the set of models that were run. They exhibited much greater likelihood, explaining the most variance. A fifth model was run without "collaboration" or "network" related variables, specifying STATA to choose variables in a stepwise fashion. The model resulted in the largest value of the information criterion, suggesting a bad fit, though the model was statistically significant (see model 5 in table 20); the outcomes will now be reviewed.

The variables *DevActive^Plan* and *PuPri* were statistically significant with positive coefficients, suggesting that communities with the greater number of development policies and an updated development plan, had a better the chance to collaborate; and that the public-private agencies were more likely to collaborate. McGuire (2000) also found that the existence of a lead agency that is a public-private partnership was positively and significantly related to the level of collaboration by the city. The rest of the variables in the model, *Aware*, *SupDem* and *Dir* were also positive but statistically insignificant, though their *p*-values were smaller than 0.160. Although without the "highly statistically significance" back-up, one may suggest that more aware municipalities are more likely to collaborate, as well as those with demand-side policies and with a full-time director in charge. The signs of the coefficients were consistent with the expected ones.

Finally, spatial logistic regressions were run with all five models displayed in table 20. None of them was statistically significant. However, among other models run in the process with a spatial lag component among the independent variables, there was one that came out with a low *p*-value though non-significant. Table 21 shows the model. Lambda had a *p*-value of 0.016, significant at the 0.05 level and the coefficient was 0.1858. Although, spatial dependence was statistically insignificant, the *p*-value was 0.1901. This may suggest that with a larger data set, spatial logistic regression may be an important statistic to explore. With more communities included in the regression, spatial issues may assume greater statistical significance. In essence, the missing values (non response communities) generate gaps in the spatial distribution creating significant estimation problems. But focusing on this model despite of failing to be significant at 10 percent, the significance of Lambda indicates that not modeling spatial effects will contribute to errors in estimation in such models. This suggests that the spatial dimension of social and economic may truly be an important aspect of modeling and it needs further attention.

The other variables suggested in the methodology chapter and displayed in table 4, section 3.2.2 were not significant in any other models that were run. Actually, the coefficients were very close to zero, their *p*-values were very high (>0.700) and most of the variables in the models were insignificant. These variables were population, poverty, diversity, manufacture, debt, plan, budget and even network cohesion. Network cohesion, *per se*, was weak for the region based on the response rate of participants; so, it was not a good predictor. For the rest of the variables, one may suggest that sample size might be a factor impeding a better fit and/or significance.

An alternate explanation might be that the dynamics in the Chicago Metro Area are different from other metro areas analyzed in other studies. Chicago has a complex socio-economic structure, and a unique set of population dynamics, specifically the racial composition of the city. In addition, the industrial composition of Chicago has changed over the past several decades, with steady declines in manufacturing, whereas growth in employment in the service sector has been strong.

Table 21. Spatial Error Model

R-squared = 0.578901			Log Likelihood = 5.916881		
Sigma-square = 0.056151			Akaike info criterion = –1.83376		
S.E. of Regression = 0.236962			Schwarz criterion = 16.411110		
JV	**Coef.**	**Std. Err.**	**z**	**P>z**	
Norm	–0.0210	0.00401	–5.2285	0.000	Breush-Pagan Test: 357.1985 (0.000)
Devactive	0.01728	0.00365	4.73598	0.000	
Between	2.68641	0.45149	5.95003	0.000	
Aware	0.02658	0.00383	6.94115	0.000	Likelihood Ratio Test: 1.7164 (0.000)
Lambda	0.18588	0.07719	2.40821	0.016	
_cons	0.00457	0.01934	0.23665	0.813	

In addition, the dependence of suburbs within the Chicago metro area on the City of Chicago may be different from suburb-central city relations in other metro areas. The non-city of Chicago part of the metropolitan area was seemingly unfazed by the economic slowdown of the early 1990s, experiencing job growth at the same time Chicago was in the depths of the recession. Interregional commuting among multiple household workers is another fact that adds to the complexity. Worker-consumers have already embraced interdependence without the need of formal joint ventures or top-down collaboration as discussed earlier in this dissertation. Therefore, the nature of the Chicago Metro Area poses a challenge to traditional designs of this type of ICA research.

4.12 Collaboration outcomes

The final analytical step in this dissertation is an effort to explore the extent to which collaboration translates into capacity and consensus building in the local economic development process (see Table 22). Most of the respondents indicated that they agree with the statements provided. The statements that received the most positive affirmation were that institutional collective action makes their region stronger and that the communities have benefited from economic development cooperation engagement with other communities. This suggests that survey respondents consider that collaboration has been an effective policy making tool. Collaboration is a great resource not only for consensus building, experimentation and learning, but for making the socio-economic structure of the region stronger and more efficient. This is consistent with the claims by Healey (1998) and Innes (2004).

Table 22. Collaboration translates into better outcomes and capacity and consensus building
Count numbers (percentages)

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
Institutional collective action among communities of the Chicago metro area makes our communities and the region itself stronger.	0 (0.00%)	2 (4.44%)	7 (15.56%)	29 (64.44%)	7 (15.56%)
My community has benefited from economic development cooperation engagement with other communities.	0 (0.00%)	6 (13.33%)	7 (15.56%)	28 (62.22%)	4 (8.89%)
Experimentation, learning, change and consensus building is easier through establishing a cooperative agreement than otherwise.	2 (4.44%)	2 (4.44%)	15 (33.33%)	24 (53.33%)	2 (4.44%)
Rich social networks generated by institutional collective action represent a great resource of institutional capital through which new initiatives are taken more rapidly and legitimately.	1 (2.22%)	0 (0.00%)	16 (35.56%)	26 (57.78%)	2 (4.44%)
Collaborative approaches in local economic development initiatives in your community achieve more effective and durable outcomes.	0 (0.00%)	1 (2.22%)	15 (33.33%)	22 (48.89%)	7 (15.56%)
Based on actual facts and tangible outcomes, it is better to pursue economic development in a cooperative environment than under a competitive advantage environment.	0 (0.00%)	4 (8.89%)	15 (33.33%)	18 (40.00%)	8 (17.78%)

It was hypothesized that those communities with denser and more centralized networks will benefit the most from collaboration. Therefore, an unpaired difference in means *t*-test was used to test this hypothesis (see table 23). The group of communities with a joint venture was divided into 2 groups; one with the municipalities with the highest densities and the other with the lowest ones. In general, the average additive index for the group with denser networks is greater than for the group with less dense networks. However, none of the differences among the statements was found to be significant, with the exception of the last statement: '*Based on actual facts and tangible outcomes, it might be better to pursue economic development in a cooperative rather than a competitive environment*'. The group with denser networks agreed more than the other group, because they have more ties and are more powerful. Thus, it is more favorable for them to work in collaboration than in isolation. This is consistent with the claim that effectiveness of particular

Table 23. Mean Differences in Collaboration Outcomes

Mean (Standard Deviation)

	Mean Value	
	Denser	**Less Dense**
Institutional collective action among communities of the Chicago metro area makes our communities and the region itself stronger.	3.90 (0.79)	3.92 (0.64)
My community has benefited from economic development cooperation engagement with other communities.	3.65 (0.99)	3.68 (0.69)
Experimentation, learning, change and consensus building is easier through establishing a cooperative agreement than otherwise.	3.50 (0.80)	3.48 (0.82)
Rich social networks generated by institutional collective action represent a great resource of institutional capital through which new initiatives are taken more rapidly and legitimately.	3.75 (0.55)	3.52 (0.77)
Collaborative approaches in local economic development initiatives in your community achieve more effective and durable outcomes.	3.95 (0.60)	3.64 (0.81)
Based on actual facts and tangible outcomes, it is better to pursue economic development in a cooperative environment than under a competitive advantage environment.	3.95[1] (0.69)	3.44[1] (0.96)
Overall Mean	22.70 (3.37)	21.68 (2.67)

[1]*Statistically significant at 0.10*

economic development policies is determined by the ability of the development official to successfully search and engage multiple actors in the process (McGuire, 2000). However, more statistical significant evidence is needed to apply this claim solidly.

CHAPTER 5 SUMMARY EVALUATIONS

The first objective of this dissertation was to study the level of awareness of spatial interdependence and interaction among economic development practitioners in the metro area. In these regards, communities showed that they are more aware of their position in relation to the rest of the region than being aware of what neighboring communities are doing. For example, they have a clear understanding on whether their communities are primarily residential or employment centers. They also know how much the community can be affected by decision-making processes in nearby communities. As discussed earlier in section 4.9, this is very important because they can relate to others in regards to decision-making and policy-making. However, communities are not aware of every spatial trend in neighboring communities. For example, they are not sure about how other communities relate to them and impact their economy or demographics. Most of the communities are without knowledge about the intercommunity interaction between households in the various sectors of economic activity in the region.

The second objective was to explore any existing network of collaborative activities. In these regards, the Chicago Metro Area has fewer actual numbers of ties present within the network than the potential number of possible ties. Communities are not taking advantage of the potential networking opportunities as a region. The few connections already established have low-to-moderate centralization scores. This means that connections are more evenly distributed with the exceptions of a few leaders of the networks. For example, CHI46, CHI03, CHI28 and CHI67 exhibits the highest network degrees, suggesting that they are the leaders in cooperation in the region. CH37, CHI46, CHI56 and CHI85 exhibited the highest levels of betweenness, evidencing their relevant presence in the network because they connect municipalities because of their different projects or ties with them. CHI59, CHI82, CHI06 and CHI19 exhibited the highest levels of closeness, which means they can represent power in potential networks. Finally, organizations such as CMAP, Illinois Department of Transportation, Choose DuPage, the International Council of Shopping

Centers, the IL Department of Commerce and Economic Opportunities, the Lake County Partners, and economic development organizations of the counties of McHenry, Cook and Will exhibit the greatest ties with communities in the region. These are key organizations in nurturing collaboration in the region.

The third objective was to identify factors influencing the collaborative setting. The factors that influence the most on the likelihood to collaborate in the region are spatial autocorrelation, cooperative norms, network centralization, and communities with an updated development plan and with various development policies/projects actively running. Therefore, communities in Chicago are more likely to collaborate with other communities if these communities are very active in economic development. They are also willing to collaborate if their connections are more evenly distributed, but not too many cooperative norms between them. Communities agree that the most important factors that will increase the likelihood of cooperating are the improvement of the economic advantage of the city in relation to their neighbors and the need to decrease cost of service delivery. They also value transparency and communities that are proactive.

The fourth objective was to investigate how collaboration translates into development outcomes. The consensus among the participant communities in this study is that collaboration translates into capacity and consensus building in the local economic development process. Community leaders agree that institutional collective action makes their region stronger and their economic development improve. Most of them coincide in that collaboration is a good policy-making strategy.

5.1 Suggestions for Future Research

Logistic regression overestimates odds ratios in studies with small to moderate samples size (Nemes *et al.*, 2009). A solution for this problem is to use exact logistic regression. Similarly, this is used to model binary outcome variables in which the log odds of the outcome are modeled as a linear combination of the predictor variables (Hirji, 2005). Nonetheless, it handles small to

moderate sample sizes, empty cells in the data set and stratified data better than a regular logistic regression. Another option is to try using factor analytic regression to reduce the variable space. It reduces attribute space from a larger number of variables to a smaller number of factors for data modeling. It is especially useful to create a set of factors to be treated as uncorrelated variables as one approach to handling multi-collinearity but that was not the case in here. Finally, more spatial logistic regressions are suggested, perhaps after a reduction post-factor analysis or gathering more data. The socio-economic nature of Chicago Metro Area make us suspect that models predicting likelihood to collaborate should account for spatial dimensions.

CHAPTER 6 CONCLUSION

The major contribution of this study was to examine collaborative economic development efforts in the Chicago metro area, which has been traditionally understood as a region with significant levels of independence among its communities. Therefore, this region has been neglected in research assessing intraregional, interorganizational, and intergovernmental collaboration. In order to address this gap in the literature, this study explored the spatial structure of collaboration, the variables that are likely to influence collaboration, and the impact that collaboration has on economic development outcomes. Data limitations due to a low response rate prevented a more comprehensive analysis; however, this study provided interesting findings that suggest the need for further research on collaboration in the Chicago metro area. These findings may have implications in the economic development field and policy making. This chapter offers some concluding remarks drawing on the methodology, results, and analyses discussed in previous chapters.

6.1 Addressing the research questions

The first research question was: Do communities engage in collaborative activities? If so, how complex are these social relationships? What is the network structure of these collaborations? How do cooperative norms strengthen these networks? The hypothesis was that most of the communities in the Chicago metro area are expected to engage in collaborative activities, resulting in complex and dense networks. In addition, cooperative norms such as trust, reciprocity, and commitment are expected to strengthen these networks. This hypothesis was challenged by the fact that only 49.45 percent of the participating communities engaged in collaborative efforts. Although the low response rate might have impacted the results, it seems that collaboration is not a popular characteristic of the region. Relationships and connections are already established, but either communities ignore it, or are not willing to engage in collaborative efforts. Established social relationships resulted in sparse and relatively simple networks, rather than complex and dense

networks. However, cooperative norms resulted in a relevant factor in favor of collaboration and stronger ties.

The complexity and density expected from the networks did not happen. When there is collaboration, the characteristics of a network are relatively higher density and betweeness. Chicago has a low density for collaboration purposes. Density is a measure of the level of connectivity within the network, and for Chicago is 0.040. Thus, the actual number of ties present within the network is 4 percent of the potential number of possible ties. This is consistent with many cities in the US, but is far from the leaders in Hawkins (2007) that has densities above 0.10. Betweenness is the extent to which a node lies between other nodes in the network, bridging clusters, connecting actors indirectly through their direct links, and in Chicago, communities with the higher betweenness were 0.10 or lower. If Chicago were collaborating more, its density would be above 0.13 and its betweenness would be 0.5 or above.

The suggestion better collaboration translated in stronger networks is very important, because that provides empirical evidence of collaboration and identifies the key actors. However, do networks always provide positive outcomes? Just like positive network effects cause positive feedback loops and exponential growth, negative network effects create negative feedback and exponential decay. For example, congestion in the network (too many communities and/or organizations cooperating) may decrease the efficiency of a network as more cities use it, and this reduces the value to cities already using it. Another negative externality of collaboration networks is when there are policies backed up by a huge collaboration chain and those policies fail. When they fail, the domino effect may be enormous. Besides, if there is a miscommunication or a break in trust between crucial and central agencies in the network, the whole structure suffers.

Cooperative norms such as trust, reciprocity, and commitment were expected to strengthen these networks, but cooperative norms additive index was lower for communities with joint ventures than for those without joint ventures. This suggests that collaborating does not always

happen because of trust, but because together, a community can watch the other, like the saying "keep your enemy closer." Another suggestion is that communities without joint ventures have higher perceptions of trust, reciprocity and commitment, but either the characteristics of their population, employment and industries do not favor them or transaction costs have been higher than benefits in certain opportunities.

Collaboration was popular among First and Second wave policies, especially on policies rooted on the export base theory aimed at improving the community's attractiveness to industries. Policies aimed for are industrial recruitment and promotion, as well as efficiency improvement through infrastructure upgrades were among the top 10. Collaboration on Third Wave policies were low ranked. It seems that collaboration towards development policies by creating the context for economic growth through public-private partnerships, networks that leverage capital and human resources to increase the global competitiveness is not perceived as important. Curiously, OECD (2012) advised the region on not only collaborating but also on promoting innovation-driven economic development, job creation, job training, entrepreneurship, leadership, regional-based growth, etc. This is what collaboration under Third Wave policies look like (Blakely and Bradsahw, 2002; Blakely and Green-Leigh, 2009; Bradshaw and Blakely, 1999; Eisinger, 1998; Stimson et al., 2002; and Florida, 2002).

The second research question was: What are the factors explaining the creation of voluntary cooperative arrangements among local governments in the Chicago metro area? It was hypothesized that community and metro area characteristics, local political institution, and intergovernmental networks would significantly impact the likelihood of collaboration. Cooperative norms and network centralization were found to be statistically significant factors, as well as the number of development policies, being a public-private agencies, and level of formal education. These factors were consistent with expectations, however, not all the variables representing community characteristics, political institutions, and networks were significant.

Communities interested in maximizing their potential to engage in joint ventures and collaborate need to create development policies; update their action plan; seek centralized networks of joint ventures; have awareness of their place in the region with respect to other communities, as well as to how other communities relate to their own, and exhibit greater flexibility with respect to their collaborative norms. Additionally, the costs of collaboration are important and communities interested in collaborating should aim to have low transaction costs.

One factor considered here, that was not considered in other studies, is spatial autocorrelation. Spatial autocorrelation was found in certain areas of this study. For example, municipalities with joint ventures have some interesting spatial trends. Given dissimilarities among most of the suburban communities in Chicago, it was seen many negative autocorrelations, with the exception of a positive autocorrelation in the Northeast, where there are more homogenous communities. Positive autocorrelation of municipalities with a development plan was found in the South, where there is poverty, crime, unemployment and bad economic environment. Nonetheless, it is very important to point out that these spatial analyses do not account for collaboration that is not spatial adjacent. This collaboration is normally coordinated by a third agency, an umbrella organization and may imply policies related to transportation or education/training (e.g., universities in specific cities serving the entire region), etc. If not, then the collaboration may come from personal ties previously established or very specific objectives.

The third research question was: What is the awareness level of economic development practitioners about spatial interdependence and interaction among local governments in the Chicago Metro Area? The hypothesis was that the region would be spatially aware, but with statistically significant differences based on whether or not the communities had joint ventures. Spatial autocorrelations were expected with those closer to the city of Chicago and located in the Northeast thought to be more aware. Results revealed that the communities had fair-to-good spatial awareness, but contrary to expectations, there were no significant differences between

communities with and without joint ventures. Moreover, communities were more aware of their position with respect to other communities in their region; while being less aware of what is happening interregionally, which can make the communities more closer than distant. Furthermore, clusters with higher levels of awareness were found in the Central region and farther from the Chicago metro area, in the Nortwest.

The final research question was: Are collaborative activities facilitating capacity and consensus building in the local economic development process? If so, how is everyone benefiting? The hypothesis was that collaboration activities would facilitate capacity and consensus building in the local economic development process. Those with denser and more centralized networks were expected to benefit the most. The first part of the hypothesis was consistent with findings, suggesting that collaboration is a great resource for consensus building, as it can make the region socio-economically stronger and more efficient. However, the second part of the hypothesis was not supported because mean differences between dense and sparse networks were not statistically significant.

6.2 Closing remarks

This dissertation sought to address three important gaps in the literature. First, this research is one of the firsts to study collaboration in the Chicago metro area and examine *intra*regional collaboration. This allows the researcher to focus on one metropolitan area, address more details on the subject, and provide a better understanding of the geography (spatial dimension) of collaboration. The Chicago metropolitan area is of particular interest because it has more units of local government than any comparable area in the US. Specifically, it has 2,155 local government units, representing one-third of the local governments in Illinois, the state with the highest number of local governments in the country (Census of Governments, 2012)[10].

[10] http://www2.census.gov/govs/cog/g12_org.pdf

Second, this study investigated the impact of collaboration in facilitating capacity and consensus building in the local economic development process. This study highlights the need for further research in this area. In fact, Hawkins (2007) argues that there is limited consensus on the degree to which collaborative policies result in measurable benefits. Findings suggest that policy makers and researchers should explore this in more depth.

Outcomes from this dissertation suggest that there might be some barriers to collaboration that drive communities to create development strategies in isolation. Three of the most important barriers were difficulty formulating rules that govern the agreement, lack of agreement among communities on development goals, and lack of agreement on the ways work/services are to be provided. Transaction costs are very important when communities agree on a collaboration deal. However, another issue that is worth to be discussed is the possibility of self-selection of communities (e.g., bedroom) precluding collaboration. That is communities that have little interest in attracting activity because most of their resident work outside and they would not have much interest in collaboration. Those should be excluded from deeper discussions on barriers coming from collaboration issues. This self-selection issue is commonly spotted in spatial analysis where a community not collaborating at all but surrounded by communities that collaborate. There is not further reason but that the community itself does not want to collaborate because it is simply not convenient. The danger of the barriers comes from collaboration issues because it is the macro (region-wide) economy that may suffer (Kim and Hewings, 2011), which makes the shift towards collaboration a critical step to consider and be further explored in local economic development efforts and research.

Participating communities seem to be neglecting the interactions among communities that intraregional workers, consumers, and residents have already embraced by commuting more frequently and crossing communities' boundaries. In this process, communities are not taking advantage of existing interactions in creating policy and, therefore, missing the potential to

maximize their development and growth. This contradicts Tiebout's notion that people relocate from one political jurisdiction to another in search of a more preferred package of government taxes and spending.

It is believed that people "shop" for compatible government activity in the same way they might shop for other goods and services. However, many people are currently living in one community, working in another, and shopping in a third one. This shows that workers, consumers, and residents are already making regions interact without any official policy dictating this collective action; and this is not accounting for the constant migration. Further, as two-career households become an ever-increasing share of the labor force, it is highly unlikely that both will live and work in the same community. In fact, Hewings and Parr (2007) suggest that collaboration will eventually become necessary given the complexity of job-income-consumption dynamics. Therefore, this study makes a significant contribution by examining intergovernmental collaboration, exploring the social network structure of collaboration, and identifying the conditions under which local governments collaborate, as well as the resulting outcomes of collaboration.
Collaborative efforts may need to extend beyond state lines.

This dissertation explored and explained collaboration among communities in the Chicago Metro Area. However, the existing institutional collective actions are low and need to be strengthened. Communities need to acknowledge the interactions that already happening and embrace institutional collective action with a focus on future intercommunity developments. OECD (2012) made strong statements about this lack of "regional" perspective in a much broader geography – the 14-county Chicago-Naperville Joliet Metropolitan Statistical Area (MSA), that includes South Wisconsin, Northeastern Illinois and Northwestern Indiana. In regards to collaboration, OECD (2012) made the following statements:

1. There has been no meaningful inter-state integrated transportation planning in the tri-state region due to the lack of cooperation in the interests of functional regions that cross state lines.
2. There is no policy conditionality or financial incentives to encourage cooperation among public authorities.
3. Given the current tight fiscal environment, progress in program management must be made by improving collaboration between key institutional actors across the tri-state region, including federal funders, state and municipal governments, educational institutions, training service providers, the workforce boards and the business groups.
4. Collaboration is needed to articulate common region-wide goals and implement region-wide strategic plans to achieve them.
5. Inter-firm and business-academia collaboration could be enhanced.
6. Existing institutions need to work together on a tri-state regional approach.

These statements are consistent with the findings and recommendations of this dissertation. Moreover, this dissertation discussed and explained some of the factors influencing the lack of collaboration and the few collaboration efforts that are already in action.

Whereas the OECD (2012) suggested more inter-state collaboration, this dissertation focused on intra-state collaboration. At each level of organization, from the departments of individual agencies to communities, states, and regions, the collaboration issue becomes progressively more complicated. If the literature suggest there is a problem trying to get adjacent agencies and communities to work together, imagine trying to do this across multiple states. Existing mechanisms for intrastate collaboration and cooperation could serve as a basis for broad geographic coordination of economic development.

Beyond the statements listed above, OECD (2012) also claimed that although Chicago's legal mandates are geographically limited, there is no barrier to their discussing and collaborating with

each other to ensure coherence at the regional level. This contradicts the findings in this dissertation, because respondents agreed that coordination costs and negotiation costs are barriers in their efforts to collaborate. However, OECD (2012) also claimed that true region-wide collaboration across state lines by the region's stakeholders leading to successful outcomes could draw state and federal attention to the need for high-level strategic planning that recognizes the tri-state region as a functional, integrated economic engine of the country's national and international economic performance. This is consistent with our findings that suggest that visibility is a very important motivation to collaborate. In this particular case, it is not only for political reasons but for economic reasons in attracting funding to the region. This dissertation could be used as a follow-up or as a complement of the OECD's (2012) report.

CHAPTER 7 REFERENCES

Abernethy. V. D. (1999). A Darwinian account of the fertility opportunity hypothesis. *Population and Environment*, 21(2): 119-148.

Agranoff, R. (1996). Managing intergovernmental process. In Perry, J. L. [ed] *Handbook of public administration*. San Francisco: Jossey-Bass, 131-147.

Agranoff, R. and McGuire, M. (1998a). A jurisdiction-based model of intergovernmental management in U.S. cities. *Publius: the Journal of Federalism*, 28, 1-20.

Agranoff, R. and McGuire, M. (1998b). Multinetwork management: Collaboration and the hollow state in local economic policy. *Journal of Public Administration Research and Theory*, 8, 67-91.

Agranoff, R. and McGuire, M. (2003). *Collaborative public management: New strategies for local governments*. Washington, DC: Georgetown University Press.

Altman, M. (2003). Staple theory and export-led growth: constructing differential growth. *Australian Economic History Review*, 43(3): 230-255

Barnes, T.J. (1985). Theories of interregional trade and theories of value. *Environment and Planning A* 17(6): 729-746

Bartik, T. J. (2003). *Local economic development policies*. Kalamazoo, MI: W. E. Upjohn Institute for Employment Research.

Becker, G. S. (1964). *Human capital*. New York: Columbia University Press.

Bellandi, M. (1996). On entrepreneurship, region, and the constitution of scale and scope economies, *European Planning Studies*, 4: 421-438.

Blakely, E.J. and Bradshaw, T.K. (2002). *Planning local economic development: Theory and practice*. Thousand Oaks, CA: Sage Publications, Inc.

Blakely, E.J. and Green-Leigh, N. (2009). *Planning local economic development: Theory and practice*. Thousand Oaks, CA: Sage Publications, Inc.

Bolton, R. (1992). Place prosperity vs. people prosperity revisited: An old issue with a new angle. *Urban studies*, 29: 185-203.

Bourdieu and Passeron (1970). Reproduction in education, society and culture. London: Sage.

Bradbury, K., Downs A. and Small, K. (1980) Dynamic of central city-suburban interactions. *American Economic Review*, 70, 410-414.

Bradshaw, T. K. (1993). Multicommunity networks: A rural transition. *Annals of the American Academy of Political and Social Science*, 10(4), 164-175.

Bradshaw, T.K. and Blakely, E. J. (1999). What are the "third-wave" state economic development efforts? From incentives to industrial policy. *Economic Development Quarterly*, 13: 37-52.

Brusch, C. (1990) Women and enterprise creation: Barriers and opportunities. In the Organization for Economic Cooperation and Development [Ed]. *Local initiatives for job creation enterprising women,* pp 37-55.

Burt, R. (1992). Structural holes: The social structure of competition. Cambridge, MA: Harvard University Press.

Cameron, J. (2003). *Collaborating with communities: An assets-based approach to community and economic development*. Paper Presented at the Planning Institute of Australia, National Planning Congress, Adelaide pp 1-11

Campbell, S. and Fainstein, S. S. (2003) *Readings in planning theory*. Boston, MA: Blackwell Publishing.

Carrington, P., Scott, J, and Wasserman, S. (2004). Models and methods for social network analysis. New York: Cambridge University Press.

Carr, J.B. and LeRoux, K. (2005). *Which local governments cooperate on public safety? Lessons from Michigan*. Working group on interlocal services cooperation, Wayne State University Digital Commons. http://digitalcommons.wayne.edu/interlocal_coop/4/ [accessed October 16, 2010].

Chang, S-W. and Coulson, E. (2001). Sources of sectoral employment flcutuations in central cities and suburbs: Evidence from four eastern cities. *Journal of Urban Economics*, 49, 199-218.

Cheng, G. [Ed] (2009) *10 ideas for economic development*. Washington, DC: Franklin and Eleanor Roosevelt Institute.

Chicago Urban League. (2008). The future of economic development for African Americans in the Chicago metropolitan area: The next ten years. Retrieved on January 23, 2011 from http://www.thechicagourbanleague.org/723210130204959623/lib/723210130204959623/_Files/FINAL_08_AA_Eco_Study.pdf

Cigler, B. A. (1994) Pre-conditions for multicommunity collaboration. *Towards an understanding of multicommunity collaboration*. USDA AGES Staff Report 9403.

Cigler, B. A. (1999) Pre-conditions for the emergence of multicommunity collaborative organizations. *Policy Studies Review*, 16, 1.

Clark, S.E. and Gaile, G.L. (1992). The next wave: Post-federal local economic development strategies. *Economic Development Quarterly*, 6(2): 187-198.

Clingermayer, J. C., and Feiock, R. C. (1990). The adoption of economic development policies by large cities: A test of economic, interest group, and institutional explanations. Policy Studies Journal, 18(3), 539-552.

CMAP (2007). *Industry Clusters: CMAP Regional Snapshot*. Retrieved on October 31, 2013 from http://www.worldbusinesschicago.com/files/data/Industry%20Cluster%20Snapshot_lowres.pdf

CMAP (2009). *Industry Cluster Analysis: Regional Economic Base Analysis*. Technical report retrieved on November 2, 2013 from http://www.channelingreality.com/CORE/Other_Areas/Chicago_IndustryClusters_TechnicalReport.pdf

Coase, R.H. (1937). The nature of the film. In G.J. Stigler and Boulding, K.E. [eds], *Readings in price theory*. Homewood, Ill.: Irwin.

Coase, R.H. (1960). The problem of social cost. *The Journal of Law and Economics*, 3(1), 1-44.

Coase, R.H. (1988). *The firm, the market and the law*. Chicago, IL: University of Chicago Press.

Cohen, D.J. and Prusak, L. (2001). *In good company: How social capital makes organizations work*. Boston, MA: Harvard Business School Press.

Coleman, J. S. (1987). Norms as social capital. In Radnitzky, G. and Bernholz, P. [eds], *Economic imperialism: The economic approach applied outside the field of economics*. New York: Paragon House.

Coleman, J. S. (1990). *Foundations of social theory*. Cambridge, Mass.: Cambridge University Press.

Cooke, P. (1996). The new wave of regional innovation networks: Analysis, characteristics and strategy. *Small Business Economics*, 8(2), 159-171.

Cox, K.R. and Mair, A. (1988). Locality and community in the politics of local economic development. Annals of the Association of American Geographers, 78 (2): 307-325

Diochon, M. (2003) *Entrepreneurship and community economic development Montreal*. McGill-Queen's University Press.

Downs, A. (1994). *New vision for urban America*. Washington, DC: The Brookings Institution.

Downs, A. (1996). Are suburbs really independent from central cities? *National Real Estate Investor*, October 1, 28-38.

Eisinger, P. K. (1988). *The rise of the entrepreneurial state*. Madison, WI: University of Wisconsin Press.

Eisinger, P. (1995). State economic development in the 1990s: Politics and policy learning. *Economic Development Quarterly*, 9: 146-58.

Evans, P. (1999). Introduction: Development strategies across the public-private divide. *World Development*, 24(6): IN1.

Feiock, R.C. (1991). The effects of economic development policy on local economic growth. American Journal of Political Science, 35(3): 643-655.

Feiock, R.C (2004). Introduction: Regionalism, and institutional collective action. In Feiock, R.C. [ed], *Metropolitan governance: Conflict, competition, and cooperation*. Washington, DC: Georgetown University Press. pp. 3-16.

Feiock, R.C. (2005). *Institutional collective action and local governance*. Working group on interlocal services cooperation, Wayne State University Digital Commons. http://digitalcommons.wayne.edu/interlocal_coop/5/ [accessed October 30, 2010].

Feiock, R.C. (2007). Rational choice and regional governance. *Journal of Urban Affairs*, 29(1, winter), 49-65.

Feiock, R.C. (2008). Institutional collective action and local government collaboration. In O'Leary, R. and Bingham, L. [eds], *Big ideas in collaborative public management*. M.E. Sharpe Press. pp 301-322.

Feiock, R.C., Steinnacker, A. and Park, H.J. (2009). Institutional collective action and economic development joint ventures. *Public Administration Review*, 69(2), 256-270.

Flammang, R.A. (1979). Economic growth and economic development: Counterparts or competitors? *Economic Development and Cultural Change*, 28: 47-62.

Flammang, R.A. (1990). Development and growth revisited. *Review of Regional Studies*, 20: 49-55.

Fleischmann, A., Green, G. P., and Kwong, T. M. (1992). What's a city to do? Explaining differences in local economic development policies. The Western Political Quarterly, 45(3), 677-699.

Florida, R. (2002). *The rise of the creative class, and How It's Transforming Work, Leisure, Community and Everyday Life*. New York: Basic Books.

Gallup, J., Sachs, J. and Mellinger, A. (1998). *Geography and economic development*. National Bureau of Economic Research, Working Paper No.W6849.

Gibson-Graham, J.K. (2006). *The end of capitalism (as we knew it)*. University of Minnesota Press.
Gerber, E. R. and Gibson, C.C. (2005). *Balancing competing interests in American regional governments*. Paper presented for the Program in American Democracy Speaker Series, University of Notre Dame, Notre Dame, Indiana. February 1.

Gibson, K., McKay, D. and McWilliam, A. (2004). Negotiating alternative economic strategies for regional development, *Development Bulletin*, 65: 46-65.

Glaeser, E. L. (2000). Places, people, policies: An agenda for America's urban poor. *Harvard Magazine*, 103(2): 34-35.

Goetz, E. (1993). Shelter burden: Local politics and progressive housing policy. Philadelphia, PA: Temple University Press.

Gordon, V. (2007) Partners or competitors? Perceptions of regional economic development cooperation in Illinois. *Economic Development Quarterly*, 21, 60-78.

Gottlieb (2000). The effects of poverty on metropolitan area economic performance. In Greenstein, R. amd Wiewel, W. [eds] *Urban-Suburban Interdependencies*. Cambridge, MA: Lincoln Institute of Land Policy, 21-48.

Graham, M. and Woo, J. (2009). *Fuelling economic growth: The role of public-private sector research in development*. Practical Action Publishing/IDRC.

Grant, D. (1974). The staple theory and its empirical measurement. *The Journal of Political Economy*, 82(6): 1249-1253.

Gulati, R. (1995). Social structure and alliance formation patterns: A longitudinal analysis. *Administrative Science Quarterly*, 40, 619-652.

Harrison, B. (1992). Industrial districts: Old wine in new bottles? *Regional Studies*, 26: 469-483.

Hawkins, C. (2007) *Local government joint ventures: Cooperation and competition for economic development*. Doctoral Dissertation, TheFlorida State University, Gainesville, FL (ProQuest Information and Learning Company No 3301554) Retrieved on December 10, 2010, from the ProQuest database.

Healey, P. (1998). Building institutional capacity through collaborative approaches to urban planning. *Environment and Planning A,* 30(9) 1531 – 1546

Henderson, J.V. (1974). The sizes and types of cities. *American Economic Review* 64(4): 640-56.

Hewings, G. J. D., Sonis, M., Guo, J., Israilevich, P. R. and Schindler, G. R. (1998). The hollowing out process in the Chicago economy, 1975-2015. *Geographical Analysis*, 30, 217-233.

Hewings, G.J.D., Okuyama, Y. and Sonis, M. (2001). Ecomomic interdependence within the Chicago metropolitan area: A Miyazawa analysis. *Journal of Regional Science*, 41(2),195-217.

Hewings, G. J. D. (2007). On some conundra in regional science. *Annals of Regional Science*, 42, 251-265.

Hewings, G.J.D. and Parr, J. B. (2007) Spatial interdependence in a metropolitan setting. *Spatial Economic Analysis*, 2, 7-22

Hewings, G.J.D., Feser, E. and Poole, K. (2009) Spatial territorial development policies in the United States, background paper for the World Development Report, *mimeo*.

Hirji, K.F. (2005). *Exact analysis of discrete data*. Boca Raton: Chapman and Hall.

Hirschman, A.O. (1958). *The strategy of economic development*. New Haven: Yale University Press.

Hollar, M. (2003). Central cities and suburbs: Economic rivals or allies. *Discussion Paper*. Department of Economics, George Washington University, Washington, DC.

Hoover, E.M. and Fisher, J.L. (1949). Research in regional economic growth. In Universities-National Bureau Committee on Economic Research [Ed] *Problems in the study of economic growth*. New York: National Bureau of Economic Research.

Hosseini, H. (2003). Why development is more complex than growth: Clarifying some confusion. *Review of Social Economy*, 61(1): 91-110(20).

Hummels, D., Rapoport, D. and Yi, K-M. (1998). Vertical specialization and the changing nature of world trade. *Economic Policy Review* (Federal Reserve Bank of New York), June, 79-97.

Hummels, D., Ishii, J. and Yi, K-M. (1999). The nature and growth of vertical specialization in world trade. *Working Paper*, Federal Reserve Bank of New York.

Ihlanfeldt (1995) The importance of the central city to the regional and national economy: A review of the arguments and empirical evidence. *Cityscape: A Journal of Policy Development and Research*, 1, 125-150.

Innes, J. E. (2004). Consensus building: Clarifications for the critics. *Planning Theory*, 3(1), 5-20

International City/Council Management Economic Development Surveys (1989, 1999, 2004, 2009). Retrieved on March 12, 2012 from www.icma.org

Jacobs, J. (1961). *The death and life of great American cities*. New York: Random House.

Jones, R. W. and Kierzkowski, H. (1990). The role of services in production and international trade: A theoretical framework. In Jones, R. W. and Krueger, A. O. [eds], *The political economy of international trade*. Oxford, Blackwell.

Jones, R. W. and Kierzkowski, H. (2001). A framework for fragmentation. In Arndt, S. W. and Kierzkowski [eds], *Fragmentation: New production patterns in the world economy*. Oxford University Press, New York.

Jones, R. W. and Kierzkowski, H. (2006). International fragmentation and the new economic geography. *North American Journal of Economics and Finance*, 16, 1-10.

Kamann, D.F. (1997). Policies for dynamic innovative networks in innovative milieux. In Ratti, R., Bramanti, A. and Gordon, R. *The Dynamics of innovative regions: The GREMI approach*. London: Ashgate. Pp. 367-391.

Kaplan, A. (1996) *The development practioners' handbook*. Sterling, VA: Pluto Press.

Kim, J. H. and Hewings, G.J.D. (2011). Integrating the fragmented regional and subregional socioeconomic forecasting and analysis: a spatial regional econometric input–output framework. *Ann Reg Sci,* 49(2), 485.

Knack, S. (2001). Trust, associational life, and economic performance, paper submitted to OECD, Paris.

Knack, S. and Keefer, P. (1997). Does social capital have an Economic payoff? A cross-country investigation. *The Quarterly Journal of Economics*, 112(4), 1251-1288.

Kretzmann, J.P. and Mcknight, J.L. (1993). *Building community from theiInside out: A path toward finding and mobilizing a community's assets chicago*, ACTA Publications.

Krikelas, A.C. (1992). Why regions grow: A review of research on the economic base model. *Economic Review*, 77: 16-29.

Kreuger, S. (2006). *Heterogeneity and cooperation among governments in metropolitan regions*. Paper presented at the Annual Meeting of the Midwest Political Science Association, Chicago. April 20-23.

Krueger, A.O. (1990). Government failures in development. *Journal of Economic Perspectives*, 4(3): 9-23.

Leamer, E.E. (1995). *The Heckscher-Ohlin model in theory and practice*. Princeton Studies in International Finance. 77. Princeton, NJ: Princeton University Press.

Leichenko, R. M. (2001). Growth and change in U.S. cities and suburbs. *Growth and Change*, 32, 326-354.

Littleton, L. B. (2005). Interlocal cooperation in the Bluegrass Area Development District: What factors lead to success? *Discussion Paper*. University of Kentucky: The Martin School of Public Policy and Administration.

Levy (1990). What economic developers actually do. *Journal of the American Planning Association*, 56(2): 153-160.

Leyshon, A. (2005). Introduction: Diverse Economies. *Antipode*: 859-862.

Li, P. (2008). Metropolitan economic growth and spatial dependence: Evidence from a panel of China. *Frontiers of Economic in China*, 3(2): 277-295.

Lincoln, Y. S., and Guba, E.G. (1985). Establishing trustworthiness. In *Naturalistic inquiry* (pp. 289-331). Thousand Oaks, CA: Sage.

Lynn, L. E. (1996). *Public management as art, science, and profession*. Chatham, N.J.: Chatham House.

Maillat, D. (1991). The innovation process and the role of the milieu. In Berman, Maier and

Todtling. *Regions reconsidered: Economic networks, innovation, and local development in industrialized countries*. London: Mansell. Pp. 103-117.

Malizia, E. E. (1994). A redefinition of economic development. *Economic Development Review*, Spring: 83-84.

Malizia, E.E. and Feser, E.J. (1999). *Understanding local economic development*. New Brunswick, NJ: Center for Policy Research.

Malveaux, J. (1990). Women in the labor market: The choices women have. In the Organization for Economic Cooperation and Development [Ed]. *Local initiatives for job creation enterprising women*, pp 21-35

Mandell, M. P. (1988). Intergovernmental management in interorganizational networks: A revised perspective. *International Journal of Public Administration*, 11(4), 393-416.

Mandell, M. P. (1999a). Community collaborations: Working through network structures. *Policy Studies Review*, 16(1), 42-64.

Mandell, M. P. (1999b). The impact of collaborative efforts: Changing the face of public policy through networks and network structures. *Policy Studies Review*, 16(1), 4-17.

Markusen, A. (1994). American federalism and regional policy. *International Regional Science Review*, 16: 3-15.

Mathie, A. and Cunningham, G. (2003). From clients to citizens: Asset-based community development as a strategy for community driven development. *Development in Practice* 13(5): 474-480.

Mathur, V. K. (1999). Human capital-based strategy for regional economic development. *Economic Development Quarterly*, 13(3): 203-216.

McCarthy, L. (2003). The good of the many outweighs the good of the one: Regional cooperation instead of individual competition in the United States and western Europe? *Journal of Planning Education and Research*, 23, 140-152.

McCombie, J S L. 1988a. A synoptic view of regional growth and unemployment I: The neoclassical theory. *Urban Studies*, 25: 267-281.

McGuire, M. (2000). Collaborative policy making and administration: The operational demands of local economic development. *Economic Development Quarterly, 14(3)*,278-291.

McMillen, D.P. (2003). Employment subcenters in Chicago: Past, present, and future. *Federal Reserve Bank of Chicago: Economic Perspectives*, 2Q, 2-14.

Mielke, K. and Schetter, C. (2007). Where is the village? Local perceptions and development approaches in Kunduz Province. *ASIEN*, 104: 71-87.

Myrdal, G. (1957). *Economic theory and underdeveloped regions*. New York: Harper and Row.

Nafziger, E. W. (2006). *Economic development*. New York, NY: Cambridge University Press.

Nemes, S., Jonasson, J.M., Genell, A. and Steineck, G. (2009) Bias in odds ratios by logistic regression modeling and sample size. *BMC Medical Research Methodology*, 9: 56.

North, D. (1955). Location theory and regional economic growth. *Journal of Political Economy*, 63: 243-258.

North, D.C. (1956). A reply. *Journal of Political Economy*, 64: 165-168.

Norton, R.D. and Rees, J. (1979). The product cycle and the spatial decentralization of American manufacturing. *Regional Studies*, 13: 141-151.

Obama, B.H. (2011). Remarks by the President in State of Union address [online]. Available: http://www.whitehouse.gov/the-press-office/2011/01/25/remarks-president-state-union-address [2011, February 10].

OECD (2012). OECD Territorial Reviews: The Chicago Tri-State Metropolitan Area, United States [online]. Available: http://www.oecd.org/unitedstates/oecdterritorialreviewsthechicagotri-statemetropolitanarea.htm [2013, January 23].

Okazaki, F. (1989). The hollowing out phenomenon in economic development. Paper presented at the Pacific Regional Science Conference, Singapore.

Olson, M. (1965). *The logic of collective action: Public goods and the theory of groups.* Cambridge, MA: Harvard University Press.

Ostrom, V., Tiebout, C. and Warren, R. (1961). The organization of governance in metropolitan areas. *American Political Science Review*, 55, 831-842.

O'Toole, L. J. (1993). Interorganizational policy studies: Lessons drawn from implementation research. *Environmental Politics*, 3(4), 197-217.

O'Toole, L. J. (1996). Hollowing the infrastructure: Revolving loan programs and network dynamics in the American states. *Journal of Public Administration Research and Theory*, 6, 225-242.

Pages, E.R. and Poole, K. (2003). *Understanding entrepreneurship promotion as an economic development strategy: A three-state survey*. A joint project of the National Commission on Entrepreneurship and the Center for Regional Economic Competitiveness. Retrieved on November 28, 2009 from: http://www.energizingentrepreneurs.org/content/cr_5/2_000059.pdf

Park, S. and Hewings, G.J.D. (2007a). *Aging and the regional economy: Simulation results from the Chicago CGE model*. Discussion Paper. REAL 07-T-4.

Park, S. and Hewings, G.J.D. (2007b). *Immigration, aging and the regional economy*. Discussion Paper. REAL 07-T-5.

Park, S. and Hewings, G.J.D. (2007c). *Does a change in retirement age affect a regional economy? Evidence from the Chicago economy*. Discussion Paper. REAL 07-T-6.

Parr, J.B. (1999a). Regional economic development: An export stages framework. *Land Economics* 75: 94-114.'

Parr, J.B. (1999b). Growth pole strategies in regional economic planning, a retrospective view, Part 1. Origins and advocacy. *Urban Studies*, 36: 1195-1215.

Parr, J.B. (1999c). Growth pole strategies in regional economic planning, a retrospective view, Part 2. Implementation and outcome. *Urban Studies*, 36: 1247-1268.

Peduzzi P, Concato J, Kemper E, Holford TR, Feinstein AR (1996) A simulation study of the number of events per variable in logistic regression analysis. *Journal of Clinical Epidemiology 49*: 1373-1379.

Perroux, F. (1950). Economic space: Theory and applications. *Quarterly Journal of Economics*, 64: 89-104.

Peters, A. and Fisher, P. (2004). The failures of economic development incentives. *Journal of American Planning Association*, 70(1): 27-37.

Pettit, K.L.S. and Kingsley, G.T. (2013). *An Assessment of the Community Information Infrastructure in the Chicago Metropolitan Area*. Retrieved from the Urban Institute on November 12, 2013 from http://www.urban.org/UploadedPDF/412784-An-Assessment-of-the-Community-Information-Infrastructure-in-the-Chicago-Metro.pdf

Pinilla, S. (1995). Supporting women in the informal sector: A Peruvian experince. In Dignard, L. and Havet, J. [Ed]. *Women in micro- and amall scale enterprise development*. Westview Press, pp 159-186.

Piore, M.J. and Sabel, C.F. (1984). *The second industrial divide*. New York: Basic Books.

Porter, M.E. (1990). *The competitive advantage of nations*. New York: Free Press.

Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology*, 24, 1-24.

Pred, A. (1977). City systems in advanced economies. Berkeley: University of California Press.

Putnam, R. (1995). Bowling Alone: America's Declining Social Capital. *Journal of Democracy*, 6(1), 65-78.

Putnam, R. (1995). Bowling Alone: The collapse and revival of American community. New York: Simon and Schuster.

Reese, L. A. and Rosenfeld, R. A. (2002) *The civic culture of economic development*. Thousand Oaks: Sage.

Reese, L. A. and Rosenfeld, R. A. (2003). The anatomy of an amalgamation: The case of Ottawa. *State and Local Government Review*, 35, 57-69.

Reese, L.A. and Ye, M. (2011). Policy versus place luck: Achieving local economic prosperity. *Economic Development Quarterly*, 25(3), 221-236.

Rodriquez, C.R. (1995). Women, microenterprise, and the politics of self help. New York, NY: Gerland Publishing, Inc.

Rondinelli, D. A., Johnson, J. H. and Kasarda, J. D. (1998) The changing forces of urban economic development : Globalization and city competitiveness in the 21st century. *Cityscape: A Journal of Policy Development and Research*, 3(3), 71-94.

Rothblatt, D. N. (1994). North American metropolitan planning. *Journal of the American Planning Association*, 60(4), 501-520.

Rowe, J.E. (2009). Towards an alternative theoretical framework for understanding local economic development, in Rowe, J. E. [Ed] *Theories of local economic development: Linking theory to practice*. Burlington, VT: Ashgate Publishing Co., p.329-354.

Rubin, H.J. (1988). Shoot anything that flies; claim anything that falls: Conversations with Economic development practioners. *Economic Development Quarterly*, 2(3): 236-251.

Rubin, H. J. (1989). Symbolism and economic development work: Perceptions of urban economic development practioners. *The American Review of Public Administration*, 19(3): 233-248.

Rubin, H.J. (2000). *Renewing hope: Within neighborhoods of despair*. Albany, NY: State University of New York Press.

Ryan, C., Keenan, D., and Walker, R. (2007). *Economic development practitioners identify major hindrances to development across Australia*. Retrieved on November 01, 2008 from http://www.edaustralia.com.au

Sabel, C.F. (1989). Flexible specialization and the reemergence of regional economies. In Hirst, P. and Zeitlin, J. *Reversing Manufacturing Decline?* Oxford: Berg. pp. 17-60.

Sandberg, K. (2004). *Hedonic prices, economic growth, and spatial dependence*. Unpublished doctoral dissertation, Umeå University, Sweden.

Sander, T.H. and Lowney, K, (2003). Social capital building toolkit, version 1.0, John F.Kennedy School of Government, The Saguaro Seminar, Harvard University.

Scholz, J. T., Kile, B., and Berardo, R. (2003). *Policy networks: Resolving collective environmental problems in estuaries*. Paper presented at the annual meeting of the Midwest Political Science Association, Chicago, Illinois.

Sen, A. (1983). Development : Which way now? *Economic Journal*: 745-762.

Sen, A. (1988). The concept of development, in H. Chenery and T. N. Srinivasan (eds) *Handbook of development*. New York, Tokyo, Oxford: North Holland Amsterdan, p. 9-26.

Smith, A. (2006, nd). *Articulating neo-liberalism: Diverse Economies and Everyday Life in Post-Socialist Cities*, unpublished paper: 1-26.

Solow, R.M. (1956). A contribution to the theory of economic growth. *Quarterly Journal of Economics*, 70: 65-94.

Steinacker, A. (2004). Game-theoretic models of metropolitan cooperation. In Feiock, R.C. [ed], *Metropolitan governance: Conflict, competition, and cooperation*. Washington, DC: Georgetown University Press. pp. 46-66.

Stimson, R.J., Stough, R.R., and Roberts, B.H. (2002). *Regional economic development: Analysis and planning strategy*. New York, NY: Springer-Verlag.

Storper, M. (1989). The transition to flexible specialization in the U.S. film industry: External economies, the division of labour, and the crossing of industrial divides. *Cambridge Journal of Economics*, 13: 273-305.

Storper, M. (1993). Regional worlds of production: Learning and innovation in the technology districts of France, Italy and the USA. *Regional Studies*, 27: 433-455.

Thompson, W. R. (1968). *A preface to urban economics*. Baltimore, MD: Johns Hopkins University Press.

Tiebout, C.M. (1956a). Exports and regional economic growth. *Journal of Political Economy*, 64: 160-169.

Tiebout, C.M. (1956b). Exports and economic growth, a rejoinder. *Journal of Political Economy*, 64: 169.

Tobler, W.R. (1970) A computer movie simulating urban growth in the Detroit region. *Economic Geography*, 46(2): 234-240.

Tsai, W. and Ghoshal, S. (). Social capital and value creation: The role of intrafirm networks. *The Academy of Management Journal*, 41(4), 464-476.

United Way (2013). *United Way of Metropolitan Chicago*. Retrieved on October 31, 2013 from http://agencies.uw-mc.org/wp-content/uploads/2012/10/UWMC_LU_2020_Impact_Plan.pdf

U.S. Department of Commerce (2003). *What is economic development?* Retrieved September 01, 2005, from http://www.eda.gov/Research/EcoDev.xml#Defining

Vernon, R. (1966). International investment and international trade in the product cycle. *Quarterly Journal of Economics*, 80: 190-207.

Villalobos, I. (1995). Women's micro- and small-scale enterprises' emergence, features and limits: A Costa Rican experience. In Dignard, L. and Havet, J. [Ed]. *Women in micro- and small scale enterprise development*. Westview Press, pp 145-158.

Voith, R. (1992) City and suburban growth: Substitutes or compliments? *Business Review, Federal Reserve Bank of Philadelphia*, September/October, 21-33.

Voith, R. (1998) Do suburbs need cities? *Journal of Regional Science*, 38, 445-464.

Wasserman, S., and Faust, K. (1994). Social network analysis: Methods and applications. Cambridge, ENG and New York: Cambridge University Press.

Willard, B. (2005). The next sustainability wave: Building boardroom buy-in. Gabriola Island, BC, Canada: New Society Publishers.

Wong, C. (1998). Determining factors for local economic development: The perception of practioners in the Northwest/Eastern regions of the UK. *Regional Studies*, 32(8): 707-720.

Woolcock, M. (1998). Social capital and economic development: Toward a theoretical synthesis and policy framework. *Theory and Society*, 27, 151-208.

Woolcock, M. and Narayan, D. (2000). Social capital: implications for development theory, research, and policy. *World Bank Research Observer*, 15(2).

World Business Chicago (2012). *A plan for economic growth and jobs*. Retrieved on September 18, 2013 from http://www.worldbusinesschicago.com/files/downloads/Plan-for-Economic-Growth-and-Jobs.pdf

Zeuli, K. and Radel, J. (2005). Cooperatives as a community development strategy linking: Theory and practice. *Journal of Regional Analysis and Policy*, 31(1): 43-54.

APPENDIX A

CHICAGO METRO AREA STATISTICS

Table 24. Selected Characteristics for Chicago Metro Area Counties and Municipalities

	Population			Unemployment		Median House Income		Poverty		Edu: 4yrs colg.		Emp/Res Ratio
Counties	**1990**	**2000**	**2010**	**2000**	**2009**	**2000**	**2007**	**2000**	**2008**	**2000**	**2008**	**2000**
Cook	5,105,067	5,376,741	5,194,675	5.0	10.3	45922	52564	12.3	14.8	…	36.02	1.08
DuPage	781,666	904,161	916,924	3.0	8.4	67887	73472	3.8	5.7	…	48.04	1.14
Kane	317,471	404,119	515,269	4.0	10.3	59351	68484	5.9	9.5	…	35.55	0.91
Kendall	39,413	54,544	114,736	3.0	10.0	64625	76020	3.4	1.9	…	39.15	0.63
Lake	516,418	644,356	703,462	4.0	9.8	66973	77834	5.6	7.7	…	42.76	1.03
McHenry	183,241	260,077	308,760	5.0	9.7	…	73286	3.4	5.4	…	37.71	0.73
Will	357,313	502,266	677,560	4.0	10.1	62238	71384	5.3	6.6	…	35.07	0.66
Municipalities												
Addison	32,058	35,914	36,942	4.2	…	54090	…	9.6	…	19.5	…	1.48
Algonquin	11,663	23,276	30,046	2.8	…	79730	…	1.7	…	38.7	…	0.50
Alsip	18,227	19,725	19,277	5.6	…	47963	…	6.6	…	13.7	…	1.29
Antioch	6,105	8,788	14,430	3.5	…	56481	…	3.9	…	26.7	…	1.00
Arlington Heights	75,460	76,031	75,101	2.4	…	67807	81527	2.5	…	46.5	…	1.11
Aurora	99,581	142,990	197,899	5.8	…	54861	62160	8.5	…	29.9	…	0.78
Bannockburn	1,388	1,429	1,583	5.6	…	150415	…	3.0	…	76.9	…	8.70
Barrington	9,504	10,168	10,327	3.0	…	145330	…	3.1	…	67.8	…	…
Barrington Hills	4,202	3,915	4,209	2.7	…	83085	…	3.1	…	58.2	…	2.17
Bartlett	19,373	36,706	41,208	2.3	…	79718	…	1.9	…	38.3	…	0.31
Batavia	17,076	23,866	26,045	2.3	…	68656	…	3.6	…	42.6	…	1.20
Beach Park	9,513	10,072	13,638	3.5	…	56553	…	3.7	…	14.9	…	0.24
Bedford Park	566	574	580	1.9	…	49722	…	2.1	…	14.4	…	54.91
Beecher	2,032	2,033	4,359	3.2	…	51250	…	4.0	…	16.3	…	…
Bellwood	20,241	20,535	19,071	9.5	…	52856	…	7.2	…	11.9	…	0.69
Bensenville	17,767	20,703	18,352	4.1	…	54662	…	6.5	…	19.1	…	2.09
Berkeley	5,137	5,245	5,209	5.3	…	58984	…	6.4	…	19.5	…	…
Berwyn	45,426	54,016	56,657	5.9	…	43833	…	7.9	…	17.2	…	0.42
Big Rock	…	…	1,126		…	…	…	…	…	…	…	…
Bloomingdale	16,614	21,675	22,018	3.9	…	67365	…	2.7	…	34.4	…	1.03
Blue Island	21,203	23,463	23,706	8.0	…	36520	…	13.3	…	11.7	…	0.84

Table 24. Cont.

	Population			Unemployment		Median House Income		Poverty		Edu: 4yrs colg.		Emp/Res Ratio
Municipalities	**1990**	**2000**	**2010**	**2000**	**2009**	**2000**	**2007**	**2000**	**2008**	**2000**	**2008**	**2000**
Bolingbrook	40,843	56,321	73,366	4.9	…	67852	79199	4.1	…	29.2	…	0.67
Braceville	587	792	793		…	…	…	…	…	…	…	…
Braidwood	3,584	5,203	6,191	3.6	…	54375	…	5.5	…	9.1	…	…
Bridgeview	14,402	15,335	16,446	3.6	…	42073	…	7.2	…	9.1	…	1.71
Broadview	8,713	8,264	7,932	7.7	…	47651	…	6.4	…	16.6	…	2.53
Brookfield	18,876	19,085	18,978	4.2	…	52636	…	4.3	…	26.0	…	0.41
Buffalo Grove	36,427	42,909	41,496	2.1	…	80525	…	2.3	…	55.9	…	0.76
Bull Valley	574	726	1,077	0.3	…	92693	…	2.3	…	52.7	…	…
Burbank	27,600	27,902	28,925	5.5	…	49388	…	5.1	…	9.3	…	0.41
Burlington	400	452	618	2.9	…	53438	…	5.7	…	18.8	…	…
Burnham	3,916	4,170	4,206	10.2	…	39053	…	9.8	…	12.4	…	
Burr Ridge	7,669	10,408	10,559	1.6	…	129507	…	2.8	…	58.2	…	2.10
Calumet City	37,840	39,071	37,042	8.0	…	38902	…	12.2	…	13.9	…	0.62
Calumet Park	8,418	8,516	7,835	8.7	…	45357	…	11.5	…	13.4	…	0.42
Campton Hills	…	…	11,131		…	…	…	…	…	…	…	…
Carol Stream	31,716	40,438	39,711	3.4	…	64893	…	3.4	…	32.0	…	0.94
Carpentersville	23,049	30,586	37,691	5.9	…	54526	…	8.5	…	12.2	…	0.37
Cary	10,043	15,531	18,271	3.2	…	76801	…	1.3	…	40.9	…	0.72
Channahon	4,266	7,344	12,560	3.7	…	71991	…	1.7	…	18.6	…	0.58
Chicago	2,783,726	2,896,016	2,695,598	10.1	…	38625	45505	19.6	…	25.5	…	1.12
Chicago Heights	33,072	32,776	30,276	11.1	…	36958	…	17.5	…	12.3	…	1.32
Chicago Ridge	13,643	14,127	14,305	3.8	…	44101	…	10.0	…	13.8	…	0.87
Cicero	67,436	85,616	83,891	9.6	…	38044	40626	15.5	…	6.1	…	0.57
Clarendon Hills	6,994	7,610	8,427	1.1	…	84795	…	0.6	…	65.0	…	0.50
Coal City	3,907	4,797	5,587	4.6	…	51921	…	3.1	…	13.8	…	…
Country Club Hills	15,431	16,169	16,541	7.9	…	57701	…	5.5	…	22.8	…	0.24
Countryside	5,716	5,991	5,895	3.8	…	45469	…	3.7	…	23.0	…	1.99
Crest Hill	10,643	13,329	20,837	4.2	…	45313	…	4.8	…	11.9	…	0.65
Crestwood	10,823	11,251	10,950	5.3	…	45813	…	4.6	…	14.9	…	1.30
Crete	6,773	7,346	8,259	2.9	…	67671	…	1.6	…	28.0	…	0.58
Crystal Lake	24,512	38,000	40,743	3.6	…	66872	…	3.5	…	36.2	…	1.08

Table 24. Cont.

	Population			Unemployment		Median House Income		Poverty		Edu: 4yrs colg.		Emp/Res Ratio
Municipalities	**1990**	**2000**	**2010**	**2000**	**2009**	**2000**	**2007**	**2000**	**2008**	**2000**	**2008**	**2000**
Darien	18,341	22,860	22,086	2.4	…	74836	…	2.2	…	43.5	…	0.51
Deer Park	2,887	3,102	3,200	2.6	…	149233	…	0.6	…	61.7	…	…
Deerfield	17,327	18,420	18,225	1.8	…	107194	…	1.6	…	68.5	…	2.23
Des Plaines	53,223	58,720	58,364	3.9	…	53638	…	4.6	…	24.7	…	1.64
Diamond	1,077	1,393	2,527	5.1	…	43750	…	8.6	…	9.0	…	…
Dixmoor	3,647	3,934	3,644	16.4	…	26677	…	30.3	…	7.4	…	…
Dolton	23,930	25,614	23,153	7.2	…	48020	…	8.4	…	15.4	…	0.46
Downers Grove	46,858	48,724	47,833	2.8	…	65539	…	2.3	…	46.4	…	1.61
East Dundee	2,721	2,955	2,860	2.6	…	61219	…	4.8	…	32.3	…	1.74
East Hazel Crest	1,570	1,607	1,543	7.6	…	43000	…	8.7	…	11.2	…	…
Elburn	1,275	2,756	5,602	3.7	…	67788	…	4.1	…	34.4	…	…
Elgin	77,010	94,487	108,188	5.8	…	52605	51246	8.1	…	20.5	…	1.02
Elk Grove Village	33,429	34,727	33,127	3.1	…	62132	…	2.0	…	31.6	…	2.68
Elmhurst	42,029	42,762	44,121	2.8	…	69794	…	2.5	…	45.1	…	1.32
Elmwood Park	23,206	25,405	24,883	3.9	…	47315	…	5.2	…	19.5	…	0.33
Elwood	951	1,620	2,279	2.8	…	53125	…	4.6	…	10.5	…	
Evanston	73,233	74,239	74,486	7.0	…	56335	69303	11.1	…	62.4	…	1.15
Evergreen Park	20,874	20,821	19,852	4.0	…	53514	…	4.2	…	28.1	…	0.86
Flossmoor	8,651	9,301	9,464	3.7	…	94222	…	2.8	…	61.0	…	0.68
Ford Heights	4,259	3,456	2,763	28.9	…	17500	…	49.0	…	4.3	…	4.33
Forest Park	14,918	15,688	14,167	3.5	…	44103	…	7.0	…	36.3	…	0.83
Forest View	743	778	698	6.2	…	46000	…	5.2	…	8.7	…	…
Fox Lake	7,478	9,178	10,579	3.4	…	46548	…	6.4	…	15.4	…	0.60
Fox River Grove	3,551	4,862	4,854	2.1	…	66469	…	7.1	…	33.3	…	0.39
Frankfort	7,180	10,391	17,782	3.3	…	83055	…	2.3	…	40.7	…	1.28
Franklin Park	18,485	19,434	18,333	6.9	…	46688	…	7.1	…	11.3	…	2.49
Geneva	12,617	19,515	21,495	2.7	…	77299	…	2.2	…	53.2	…	1.33
Gilberts	987	1,279	6,879	0.8	…	87847	…	0.6	…	25.4	…	…
Glen Ellyn	24,944	26,999	27,450	2.1	…	74846	…	2.8	…	58.8	…	0.96
Glencoe	8,499	8,762	8,723	1.9	…	164432	…	2.3	…	79.7	…	0.92
Glendale Heights	27,973	31,765	34,208	4.4	…	56285	…	6.1	…	26.7	…	0.61

Table 24. Cont.

	Population			Unemployment		Median House Income		Poverty		Edu: 4yrs colg.		Emp/Res Ratio
Municipalities	**1990**	**2000**	**2010**	**2000**	**2009**	**2000**	**2007**	**2000**	**2008**	**2000**	**2008**	**2000**
Glenview	37,093	41,847	44,692	2.3	…	80730	…	2.0	…	55.9	…	1.11
Glenwood	9,289	9,000	8,969	4.2	…	53894	…	3.7	…	27.9	…	0.49
Godley	322	594	601	9.1	…	42857	…	14.2	…	3.8	…	0.54
Golf	454	451	500	0.0	…	131742	…	0.9	…	82.3	…	…
Grayslake	7,388	18,506	20,957	2.3	…	73143	…	3.0	…	50.8	…	0.70
Green Oaks	2,101	3,572	3,866	3.2	…	127905	…	1.7	…	59.2	…	…
Greenwood	…	244	255	0.8	…	56250	…	7.2	…	23.2	…	…
Gurnee	13,701	28,834	31,295	2.3	…	75742	…	3.0	…	47.8	…	1.14
Hainesville	134	2,129	3,597	3.3	…	69937	…	3.9	…	36.6	…	…
Hampshire	1,843	2,900	5,563	1.8	…	58519	…	2.9	…	18.8	…	…
Hanover Park	32,895	38,278	37,973	4.5	…	61358	…	6.1	…	20.2	…	0.34
Harvard	5,975	7,996	9,447	6.8	…	44363	…	9.1	…	15.2	…	0.86
Harvey	29,771	30,000	25,282	14.9	…	31958	…	21.7	…	8.2	…	1.05
Harwood Heights	7,680	8,297	8,612	3.3	…	43288	…	4.6	…	16.7	…	1.07
Hawthorn Woods	4,423	6,002	7,663	0.6	…	132720	…	1.9	…	60.2	…	0.21
Hazel Crest	13,334	14,816	14,100	7.6	…	50576	…	8.4	…	22.1	…	0.54
Hebron	809	1,038	1,216	4.2	…	46607	…	5.1	…	9.1	…	…
Hickory Hills	13,021	13,926	14,049	3.0	…	54779	…	5.5	…	21.3	…	0.48
Highland Park	30,575	31,365	29,763	2.8	…	100967	…	3.8	…	61.6	…	1.03
Highwood	5,331	4,143	5,405	1.7	…	42993	…	7.0	…	27.1	…	…
Hillside	7,672	8,155	8,157	6.9	…	50776	…	6.3	…	20.4	…	1.71
Hinsdale	16,029	17,349	16,816	2.6	…	104551	…	3.2	…	68.6	…	1.66
Hodgkins	1,963	2,134	1,897	3.5	…	36090	…	15.5	…	6.5	…	3.15
Hoffman Estates	46,561	49,495	51,895	3.2	…	65937	…	4.4	…	35.9	…	1.00
Holiday Hills	807	831	610	4.5	…	57857	…	0.0	…	14.4	…	…
Homer Glen	…	…	24,220		…	…	…	…	…	…	…	…
Hometown	4,769	4,467	4,349	5.2	…	39512	…	3.0	…	8.6	…	…
Homewood	19,278	19,543	19,323	4.1	…	57213	…	4.3	…	40.9	…	0.93
Huntley	2,453	5,730	24,291	4.9	…	60456	…	2.8	…	22.6	…	1.34
Indian Creek	247	194	462	2.6	…	88206	…	0.9	…	51.4	…	…
Indian Head Park	3,503	3,685	3,809	2.5	…	63250	…	2.3	…	37.8	…	…

Table 24. Cont.

	Population			Unemployment		Median House Income		Poverty		Edu: 4yrs colg.		Emp/Res Ratio
Municipalities	**1990**	**2000**	**2010**	**2000**	**2009**	**2000**	**2007**	**2000**	**2008**	**2000**	**2008**	**2000**
Inverness	6,503	6,749	7,399	1.8	…	141672	…	1.5	…	53.9	…	0.46
Island Lake	4,449	8,153	8,080	2.7	…	63455	…	2.6	…	23.6	…	0.24
Itasca	6,947	8,302	8,649	5.4	…	70156	…	4.7	…	32.8	…	4.64
Johnsburg	…	5,391	6,337	2.0	…	69864	…	1.3	…	27.3	…	0.54
Joliet	76,836	106,221	147,433	6.5	…	47761	54864	10.8	…	18.6	…	0.99
Justice	11,137	12,193	12,926	6.0	…	50254	…	7.3	…	12.9	…	0.23
Kaneville	…	…	484		…	…	…	…	…	…	…	…
Kenilworth	2,402	2,494	2,513	0.9	…	200001	…	1.1	…	89.4	…	…
Kildeer	2,257	3,460	3,968	0.9	…	137498	…	0.5	…	64.9	…	…
La Grange	15,362	15,608	15,550	2.8	…	58918	…	2.6	…	41.6	…	0.43
La Grange Park	12,861	13,295	13,579	4.4	…	80342	…	4.0	…	55.0	…	1.12
Lake Barrington	3,855	4,757	4,973	3.7	…	106951	…	2.0	…	56.4	…	…
Lake Bluff	5,513	6,056	5,722	1.6	…	114521	…	1.1	…	72.9	…	1.48
Lake Forest	17,836	20,059	19,375	6.7	…	136462	…	2.1	…	73.8	…	1.65
Lake in the Hills	5,866	23,152	28,965	3.0	…	73312	…	2.1	…	32.5	…	0.23
Lake Villa	2,857	5,864	8,741	3.9	…	65078	…	3.7	…	36.9	…	0.89
Lake Zurich	14,947	18,104	19,631	1.4	…	84125	…	2.5	…	43.8	…	1.00
Lakemoor	1,322	2,788	6,017	4.8	…	56217	…	8.7	…	16.6	…	…
Lakewood	1,609	2,337	3,811	1.5	…	111172	…	1.7	…	55.3	…	…
Lansing	28,086	28,332	28,331	4.6	…	47554	…	5.4	…	18.2	…	0.82
Lemont	7,348	13,098	16,000	5.3	…	70563	…	3.6	…	32.0	…	0.83
Libertyville	19,174	20,742	20,315	2.2	…	88828	…	3.5	…	56.1	…	1.84
Lily Lake	…	825	993	2.4	…	77139	…	0.6	…	27.9	…	…
Lincolnshire	4,931	6,108	7,275	4.4	…	134259	…	1.6	…	66.4	…	6.06
Lincolnwood	11,365	12,359	12,590	1.9	…	71234	…	2.9	…	48.2	…	1.68
Lindenhurst	8,038	12,539	14,462	2.6	…	74841	…	1.6	…	37.8	…	0.20
Lisbon	216	248	285		…	…	…	…	…	…	…	…
Lisle	19,512	21,182	22,390	2.5	…	65821	…	3.6	…	50.0	…	1.88
Lockport	9,401	15,191	24,839	2.5	…	59179	…	3.5	…	22.6	…	0.68
Lombard	39,408	42,322	43,165	4.5	…	60015	…	3.8	…	36.0	…	1.20
Long Grove	4,740	6,735	8,043	2.8	…	148150	…	2.6	…	57.1	…	0.59

Table 24. Cont.

	Population			Unemployment		Median House Income		Poverty		Edu: 4yrs colg.		Emp/Res Ratio
Municipalities	**1990**	**2000**	**2010**	**2000**	**2009**	**2000**	**2007**	**2000**	**2008**	**2000**	**2008**	**2000**
Lynwood	6,535	7,377	9,007	5.8	…	56554	…	5.8	…	22.2	…	…
Lyons	9,828	10,255	10,729	7.9	…	44306	…	6.3	…	14.7	…	0.27
Manhattan	2,059	3,330	7,051	3.0	…	55559	…	3.6	…	19.2	…	…
Maple Park	641	765	1,310	6.1	…	49583	…	5.8	…	15.6	…	…
Marengo	4,768	6,355	7,648	4.8	…	50214	…	4.4	…	14.0	…	0.96
Markham	13,136	12,620	12,508	13.3	…	41592	…	16.9	…	10.6	…	0.86
Matteson	11,378	12,928	19,009	5.6	…	59583	…	4.4	…	25.4	…	1.50
Maywood	27,139	26,987	24,090	11.7	…	41942	…	13.4	…	10.3	…	1.11
McCook	235	254	228	1.6	…	43125	…	1.8	…	11.1	…	…
McCullom Lake	1,033	1,038	1,049	4.7	…	54500	…	5.5	…	6.4	…	…
McHenry	16,177	21,501	26,992	2.8	…	55759	…	4.6	…	22.1	…	…
Melrose Park	20,859	23,171	25,411	6.0	…	40689	…	10.2	…	9.6	…	2.06
Merrionette Park	2,065	1,999	1,900	4.5	…	36278	…	7.5	…	15.7	…	…
Mettawa	348	367	547	2.2	…	127388	…	4.6	…	56.9	…	…
Midlothian	14,372	14,315	14,819	6.3	…	50000	…	7.0	…	14.4	…	0.52
Millbrook	…	…	335		…	…	…	…	…	…	…	…
Millington	470	458	665		…	…	…	…	…	…	…	…
Minooka	2,561	3,971	10,924	3.8	…	75249	…	2.2	…	28.6	…	…
Mokena	6,128	14,583	18,740	3.5	…	74703	…	1.0	…	34.7	…	0.70
Monee	1,044	2,924	5,148	1.8	…	58625	…	3.4	…	17.1	…	…
Montgomery	4,267	5,471	18,438	1.4	…	51028	…	3.7	…	19.6	…	1.82
Morton Grove	22,408	22,451	23,270	2.1	…	63511	…	2.7	…	34.4	…	1.00
Mount Prospect	53,170	56,265	54,167	3.5	…	57165	…	4.6	…	35.4	…	0.74
Mundelein	21,215	30,935	31,064	3.0	…	69651	…	4.6	…	39.9	…	0.73
Naperville	85,351	128,358	141,853	2.8	…	88771	96548	2.2	…	60.6	…	1.06
New Lenox	9,627	17,771	24,394	1.9	…	67697	…	2.4	…	26.2	…	0.46
Newark	840	887	992		…	…	…	…	…	…	…	…
Niles	28,284	30,068	29,803	3.7	…	48627	…	5.4	…	24.8	…	1.59
Norridge	14,459	14,582	14,572	4.3	…	47787	…	3.9	…	15.6	…	0.89
North Aurora	5,940	10,585	16,760	3.0	…	58557	…	3.0	…	30.7	…	0.59
North Barrington	1,787	2,918	3,047	3.3	…	146251	…	2.8	…	62.6	…	…

Table 24. Cont.

	Population			Unemployment		Median House Income		Poverty		Edu: 4yrs colg.		Emp/Res Ratio
Municipalities	**1990**	**2000**	**2010**	**2000**	**2009**	**2000**	**2007**	**2000**	**2008**	**2000**	**2008**	**2000**
North Chicago	34,978	35,918	32,574	8.3	…	38180	…	15.1	…	14.8	…	1.55
North Riverside	6,005	6,688	6,672	4.4	…	43856	…	4.7	…	24.0	…	1.34
Northbrook	32,308	33,435	33,170	2.0	…	95665	…	2.3	…	62.2	…	2.16
Northfield	4,635	5,389	5,420	1.1	…	91313	…	1.6	…	68.1	…	2.83
Northlake	12,505	11,878	12,323	6.2	…	48406	…	8.4	…	7.7	…	1.76
Oak Brook	9,178	8,702	7,883	3.6	…	146537	…	2.1	…	60.7	…	8.96
Oak Forest	26,203	28,051	27,962	3.8	…	60073	…	3.6	…	22.5	…	0.49
Oak Lawn	56,182	55,245	56,690	4.0	…	47585	…	5.4	…	20.9	…	0.82
Oak Park	53,648	52,524	51,878	3.2	…	59183	…	5.6	…	62.1	…	0.64
Oakbrook Terrace	1,907	2,300	2,134	0.8	…	59148	…	3.3	…	44.5	…	8.62
Oakwood Hills	1,498	2,194	2,083	2.6	…	68182	…	5.0	…	30.3	…	…
Old Mill Creek	73	251	178	6.5	…	82426	…	2.7	…	44.0	…	…
Olympia Fields	4,248	4,732	4,988	5.4	…	94827	…	4.6	…	56.0	…	1.58
Orland Hills	5,510	6,779	7,149	3.3	…	61884	…	5.3	…	19.4	…	0.35
Orland Park	35,720	51,077	56,767	2.8	…	67574	…	3.1	…	31.7	…	0.87
Oswego	3,876	13,326	30,355		…		…	…	…	…	…	0.59
Palatine	39,253	65,479	68,557	3.2	…	63321	66689	4.8	…	41.4	…	0.70
Palos Heights	11,478	11,260	12,515	2.6	…	69907	…	3.2	…	38.8	…	1.45
Palos Hills	17,803	17,665	17,484	3.3	…	52329	…	3.4	…	24.2	…	0.48
Palos Park	4,199	4,689	4,847	2.3	…	78450	…	4.5	…	45.2	…	…
Park City	4,677	6,637	7,570	5.7	…	36508	…	8.0	…	16.0	…	0.35
Park Forest	24,656	23,462	21,975	5.3	…	47579	…	6.7	…	26.9	…	0.37
Park Ridge	36,175	37,775	37,480	1.9	…	73154	…	2.4	…	46.2	…	1.09
Peotone	2,947	3,385	4,142	2.8	…	56404	…	0.8	…	21.3	…	…
Phoenix	2,217	2,157	1,964	9.9	…	29643	…	22.9	…	7.0	…	…
Pingree Grove	138	124	4,532	13.5	…	45313	…	0.0	…	5.2	…	…
Plainfield	4,557	13,038	39,581	3.9	…	80799	…	1.8	…	33.9	…	0.80
Plano	5,104	5,633	10,856		…	…	…		…	…	…	0.68
Plattville	…	…	242		…	…	…		…	…	…	…
Port Barrington*	665	788	1,517		…	…	…		…	…	…	…
Posen	4,226	4,730	5,987	8.7	…	49470	…	7.1	…	8.1	…	…

Table 24. Cont.

	Population			Unemployment		Median House Income		Poverty		Edu: 4yrs colg.		Emp/Res Ratio
Municipalities	**1990**	**2000**	**2010**	**2000**	**2009**	**2000**	**2007**	**2000**	**2008**	**2000**	**2008**	**2000**
Prairie Grove	654	960	1,904	3.3	…	93361	…	1.3	…	38.1	…	…
Prospect Heights	15,239	17,081	16,256	3.6	…	55641	…	4.3	…	28.5	…	0.55
Richmond	1,016	1,091	1,874	3.0	…	52361	…	6.5	…	21.0	…	…
Richton Park	10,523	12,533	13,646	6.3	…	48299	…	7.0	…	25.4	…	0.36
Ringwood	…	471	836	2.8	…	71250	…	0.9	…	20.6	…	…
River Forest	11,669	11,635	11,172	4.0	…	89284	…	2.7	…	69.7	…	0.79
River Grove	9,961	10,668	10,227	4.9	…	40050	…	5.9	…	14.3	…	0.85
Riverdale	13,671	15,055	13,549	12.2	…	38321	…	18.4	…	11.7	…	0.64
Riverside	8,774	8,895	8,875	2.4	…	64931	…	3.0	…	51.1	…	0.43
Riverwoods	2,868	3,843	3,660	1.9	…	158990	…	3.2	…	65.6	…	2.55
Robbins	7,498	6,635	5,337	22.9	…	24145	…	35.5	…	8.5	…	…
Rockdale	1,709	1,888	1,976	7.1	…	39954	…	9.3	…	7.4	…	…
Rolling Meadows	22,591	24,604	24,099	2.6	…	59535	…	5.1	…	31.0	…	1.73
Romeoville	14,074	21,153	39,680	4.4	…	60737	…	1.9	…	19.3	…	0.75
Roselle	20,819	23,115	22,763	2.5	…	65254	…	2.0	…	34.0	…	0.53
Rosemont	3,995	4,224	4,202	2.6	…	34663	…	14.9	…	17.5	…	9.92
Round Lake	3,550	5,842	18,289	3.9	…	59359	…	5.1	…	16.1	…	0.27
Round Lake Beach	16,434	25,859	28,175	6.8	…	54706	…	5.9	…	12.9	…	…
Round Lake Heights	1,251	1,347	2,676	7.9	…	44896	…	10.0	…	11.2	…	…
Round Lake Park	4,045	6,038	7,505	6.6	…	58051	…	6.8	…	21.3	…	1.14
Sandwich	5,567	6,509	7,421	…	…		…	…	…	…	…	0.89
Sauk Village	9,926	10,411	10,506	7.7	…	46718	…	9.6	…	8.6	…	0.34
Schaumburg	68,586	75,386	74,227	3.1	…	60941	61818	3.0	…	38.9	…	1.79
Schiller Park	11,189	11,850	11,793	5.3	…	41583	…	9.2	…	14.4	…	1.51
Shorewood	6,264	7,686	15,615	2.7	…	76842	…	2.0	…	33.6	…	0.32
Skokie	59,432	63,348	64,784	4.0	…	57375	66088	5.4	…	42.6	…	1.37
Sleepy Hollow	3,241	3,553	3,304	1.5	…	91279	…	1.8	…	41.5	…	…
South Barrington	2,937	3,760	4,565	1.9	…	170755	…	2.6	…	62.6	…	…
South Chicago Heights	3,597	3,970	4,139	5.7	…	39639	…	6.7	…	6.7	…	…
South Elgin	7,474	16,100	21,985	2.9	…	67323	…	3.0	…	25.3	…	0.56

Table 24. Cont.

	Population			Unemployment		Median House Income		Poverty		Edu: 4yrs colg.		Emp/Res Ratio
Municipalities	**1990**	**2000**	**2010**	**2000**	**2009**	**2000**	**2007**	**2000**	**2008**	**2000**	**2008**	**2000**
South Holland	22,105	22,147	22,030	6.0	…	60246	…	4.6	…	25.6	…	1.16
Spring Grove	1,066	3,880	5,778	1.9	…	80542	…	2.4	…	28.7	…	1.51
St. Charles	22,501	27,896	32,974	2.3	…	69424	…	3.4	…	42.9	…	1.62
Steger	8,584	9,682	9,570	6.4	…	43275	…	8.5	…	10.5	…	0.36
Stickney	5,678	6,148	6,786	4.5	…	42772	…	5.8	…	8.9	…	0.84
Stone Park	4,383	5,127	4,946	8.7	…	39787	…	15.2	…	4.1	…	…
Streamwood	30,987	36,407	39,858	4.0	…	65076	…	3.0	…	26.5	…	0.37
Sugar Grove	2,005	3,909	8,997	3.8	…	75856	…	1.8	…	33.3	…	…
Summit	9,971	10,637	11,054	8.3	…	38132	…	16.2	…	7.3	…	0.76
Symerton	110	106	87	8.7	…	60357	…	0.0	…	5.1	…	…
Third Lake	1,248	1,355	1,182	2.0	…	96719	…	2.7	…	54.9	…	…
Thornton	2,778	2,582	2,338	3.1	…	46778	…	2.9	…	12.2	…	…
Tinley Park	37,121	48,401	56,703	2.8	…	61648	…	2.5	…	24.8	…	0.65
Tower Lakes	1,333	1,310	1,283	2.2	…	130388	…	2.1	…	64.5	…	…
Trout Valley	…	599	537	0.7	…	99297	…	3.4	…	60.6	…	…
Union	542	576	580	1.1	…	56528	…	5.2	…	13.7	…	…
University Park	6,204	6,662	7,129	6.2	…	50652	…	9.1	…	25.4	…	1.40
Vernon Hills	15,319	20,120	25,113	3.0	…	71297	…	2.9	…	54.3	…	1.77
Villa Park	22,253	22,075	21,904	3.7	…	55706	…	4.8	…	23.7	…	0.88
Virgil	…	266	329	4.3	…	78252	…	0.4	…	10.2	…	…
Volo	…	180	2,929	30.0	…	45833	…	33.0	…	5.9	…	…
Wadsworth	1,826	3,083	3,815	3.2	…	86867	…	2.2	…	38.1	…	…
Warrenville	11,333	13,363	13,140	1.9	…	62430	…	1.6	…	39.8	…	0.78
Wauconda	6,294	9,448	13,603	3.8	…	57805	…	4.0	…	24.0	…	1.17
Waukegan	69,392	87,901	89,078	9.7	…	42335	45548	13.9	…	16.3	…	0.88
Wayne	1,541	2,137	2,431	2.5	…	115338	…	0.6	…	53.8	…	…
West Chicago	14,796	23,469	27,086	3.8	…	63424	…	9.3	…	21.9	…	1.08
West Dundee	3,728	5,428	7,331	2.3	…	62540	…	3.7	…	36.8	…	1.64
Westchester	17,301	16,824	16,718	4.2	…	58928	…	2.5	…	30.8	…	0.87
Western Springs	11,984	12,493	12,975	1.7	…	98876	…	0.9	…	66.4	…	0.51
Westmont	21,228	24,554	24,685	4.5	…	51422	…	5.8	…	35.0	…	1.01

Table 24. Cont.

	Population			Unemployment		Median House Income		Poverty		Edu: 4yrs colg.		Emp/Res Ratio
Municipalities	**1990**	**2000**	**2010**	**2000**	**2009**	**2000**	**2007**	**2000**	**2008**	**2000**	**2008**	**2000**
Wheaton	51,464	55,416	52,894	3.5	…	73385	…	3.6	…	57.3	…	0.89
Wheeling	29,911	34,496	37,648	2.7	…	55491	…	5.3	…	32.1	…	1.18
Willow Springs	4,509	5,027	5,524	5.5	…	58322	…	6.2	…	23.6	…	2.15
Willowbrook	8,598	8,967	8,540	2.8	…	56725	…	2.0	…	44.0	…	1.16
Wilmette	26,690	27,651	27,087	2.6	…	106773	…	2.3	…	72.6	…	0.70
Wilmington	4,743	5,134	5,724	6.6	…	45659	…	5.2	…	10.2	…	…
Winfield	7,096	8,718	9,080	1.6	…	89060	…	3.0	…	45.9	…	0.82
Winnetka	12,174	12,419	12,187	1.2	…	167458	…	1.4	…	84.4	…	0.98
Winthrop Harbor	6,240	6,670	6,742	3.3	…	62795	…	3.1	…	18.2	…	0.21
Wonder Lake	1,024	1,345	4,026	2.6	…	59712	…	2.7	…	15.5	…	0.13
Wood Dale	12,425	13,535	13,770	4.5	…	57509	…	4.1	…	19.6	…	1.93
Woodridge	26,256	30,934	32,971	3.3	…	61944	…	3.8	…	39.0	…	0.47
Woodstock	14,353	20,151	24,770	4.2	…	47871	…	7.2	…	22.9	…	1.09
Worth	11,208	11,047	10,789	4.9	…	42723	…	9.3	…	11.2	…	0.43
Yorkville	3,925	6,189	16,921	…	…	…	…	…	…	…	…	1.04
Zion	19,775	22,866	24,413	6.0	…	45723	…	11.9	…	15.7	…	0.48

Table 25. Selected Characteristics for Chicago City Communities

Chicago City Communities	Population 2000	Population 2010	Unemployment 2000	Unemployment 2007	Median Household Income 2000	Poverty 2000	Education: 4yrs college 2000
Rogers Park	63,484	54,991	8.3	4.6	31,602	21.3	32.0
West Ridge	73,199	71,942	5.7	3.1	41,144	14.3	35.6
Uptown	63,551	56,362	8.2	3.6	32,328	24.9	39.5
Lincoln Square	44,574	39,493	5.6	3.2	40,898	11.4	38.1
North Center	31,895	31,867	4.7	2.6	51,758	8.6	48.1
Lake View	94,817	94,368	3.0	1.4	53,881	8.7	70.8
Lincoln Park	64,320	64,116	4.5	1.4	68,613	8.6	78.0
Near North Side	72,811	80,484	6.0	2.9	57,811	15.2	67.4
Edison Park	11,259	11,187	3.4	1.9	57,083	2.4	30.2
Norwood Park	37,669	37,023	3.0	1.8	53,402	4.3	24.7
Jefferson Park	25,859	25,448	3.2	1.9	49,640	4.9	22.1
Forest Glen	18,165	18,508	2.8	1.6	68,269	2.6	43.2
North Park	18,514	17,931	7.8	2.4	49,208	10.5	37.5
Albany Park	57,655	51,542	7.3	4.2	40,711	17.7	19.0
Portage Park	65,340	64,124	4.8	2.8	45,117	8.0	18.5
Irving Park	58,643	53,359	5.8	3.3	42,037	11.3	22.4
Dunning	42,164	41,932	5.0	2.9	49,367	5.2	16.7
Montclare	12,646	13,485	6.4	3.8	46,636	5.6	14.9
Belmont Cragin	78,144	78,684	7.3	4.3	43,159	11.2	9.9
Hermosa	26,908	25,010	11.5	6.9	38,159	16.7	8.1
Avondale	43,083	39,262	8.9	5.3	36,677	17.4	12.4
Logan Square	82,715	72,791	8.2	4.7	36,245	19.8	24.0
Humboldt Park	65,836	56,323	17.8	10.9	28,728	31.1	5.3

Table 25. Cont.

Chicago City Communities	Population 2000	Population 2010	Unemployment 2000	Unemployment 2007	Median Household Income 2000	Poverty 2000	Education: 4yrs college 2000
West Town	87,435	82,236	6.9	3.9	38,915	20.7	34.7
Austin	117,527	98,514	17.4	10.6	33,663	24.1	8.7
West Garfield Park	23,019	18,009	22.1	12.8	23,121	35.9	5.0
East Garfield Park	20,881	20,559	22.9	13.8	24,216	35.2	7.7
Near West Side	46,419	54,881	18.9	7.7	29,588	37.5	38.3
North Lawndale	41,768	35,912	25.8	16.3	18,342	45.2	7.0
South Lawndale	91,071	79,288	11.7	6.8	32,320	26.5	4.7
Lower West Side	44,031	35,769	9.1	5.3	27,763	27.0	9.3
Loop	16,388	29,283	4.5	1.4	65,128	11.9	64.4
Near South Side	9,509	21,390	9.1	5.4	34,329	32.3	42.5
Armour Square	12,032	13,443	6.1	3.4	22,756	31.1	16.7
Douglas	26,470	18,238	31.6	12.1	24,835	41.2	25.5
Oakland	6,110	5,918	26.4	15.7	10,739	52.5	9.5
Fuller Park	3,420	2,942	16.4	10	18,412	34.6	5.9
Grand Boulevard	28,006	21,929	24.4	15.2	14,178	46.9	9.9
Kenwood	18,363	17,841	13.4	6.5	36,612	24.0	44.7
Washington Park	14,146	11,717	24.8	15	15,160	51.6	5.9
Hyde Park	29,920	25,681	7.3	2.5	35,991	16.5	65.0
Woodlawn	27,086	23,740	19.8	11.5	18,266	39.4	12.7
South Shore	61,556	52,010	15.2	9.2	27,748	27.1	18.2
Chatham	37,275	31,065	13.0	7.6	32,341	17.7	19.0
Avalon Park	11,147	10,148	8.3	4.9	44,344	8.4	21.7
South Chicago	38,596	31,198	18.2	11.2	28,279	29.7	12.5
Burnside	3,294	2,916	18.4	11.2	34,790	29.1	12.1
Calumet Heights	15,974	13,812	9.2	5.4	46,326	11.9	26.2

Table 25. Cont.

Chicago City Communities	Population 2000	Population 2010	Unemployment 2000	Unemployment 2007	Median Household Income 2000	Poverty 2000	Education: 4yrs college 2000
Roseland	52,723	44,619	17.4	10.4	38,237	17.6	14.0
Pullman	8,921	7,325	17.2	10.6	30,966	22.4	11.6
South Deering	16,990	15,109	11.9	7.1	34,789	19.6	10.4
East Side	23,653	23,014	12.5	7.5	39,724	12.4	7.1
West Pullman	36,649	29,651	14.0	8.3	40,478	22.0	10.3
Riverdale	9,809	6,482	33.5	21.7	13,178	56.3	2.7
Hegewisch	9,781	9,454	7.9	4.7	43,665	10.6	10.8
Garfield Ridge	36,101	34,513	6.5	3.8	45,436	10.1	11.4
Archer Heights	12,644	13,363	6.7	3.9	39,431	6.4	8.2
Brighton Park	44,912	45,368	11.5	6.9	36,245	17.3	6.9
McKinley Park	15,962	15,612	8.7	5.3	36,010	13.1	9.6
Bridgeport	33,694	31,935	7.7	4.6	35,535	18.1	16.9
New City	51,721	44,311	14.9	8.7	25,647	34.5	6.1
West Elsdon	15,921	18,139	7.1	4.2	45,310	6.9	9.1
Gage Park	39,193	39,894	10.6	6.2	36,463	19.0	5.8
Clearing	22,331	23,139	4.9	2.9	45,533	6.9	11.3
West Lawn	29,235	33,355	7.3	4.3	47,017	7.4	11.4
Chicago Lawn	61,412	55,628	15.7	9.3	35,983	19.8	9.4
West Englewood	45,282	35,505	24.5	15.5	26,693	32.1	4.8
Englewood	40,222	30,654	25.8	16.1	18,955	43.8	5.2
Greater Grand Crossing	38,619	32,602	18.6	11.4	27,916	28.5	12.4
Ashburn	39,584	41,081	8.8	5.2	53,633	6.9	19.0
Auburn Gresham	55,928	48,743	16.7	10.2	34,238	20.6	10.4
Beverly	21,992	20,034	5.8	3.4	66,823	4.0	49.8
Washington Heights	29,843	26,493	12.9	7.8	43,201	12.4	16.4

Table 25. Cont.

Chicago City Communities	Population 2000	Population 2010	Unemployment 2000	Unemployment 2007	Median Household Income 2000	Poverty 2000	Education: 4yrs college 2000
Mount Greenwood	18,820	19,093	4.4	2.4	57,493	3.9	20.9
Morgan Park	25,226	22,544	8.5	4.9	53,133	11.5	27.2
O'Hare	11,956	12,756	4.1	4.3	43,542	8.0	29.3
Edgewater	62,198	56,521	6.7	3.5	35,766	17.1	41.9

Updated with Census 2000 SF-1 and Census 2010 PL94-171 totals

APPENDIX B

SURVEY INSTRUMENT FOR COMMUNITIES WITH A JOINT VENTURE

Pre-Survey: Situation Awareness Study

AWARE **These questions refer to your level of awareness on intraregional/intercommunity dependence**

For the following questions, please check the box that best describes your answer:	Not at all Aware	Slightly Aware	Somewhat Aware	Moderately Aware	Extremely Aware
Are you aware of how many of your residents work in your community and how many of them work in other communities?	☐	☐	☐	☐	☐
Are you aware of how much your community can be affected by decision making processes in nearby communities?	☐	☐	☐	☐	☐
Are you aware of the (intercommunity) interaction between households the various sectors of economic activity in the region?	☐	☐	☐	☐	☐
Are you aware of whether is your community an employment center or a bedroom community?	☐	☐	☐	☐	☐
Are you aware of the characteristics of the flows of goods and services between sectors in your community and other communities within the metro area?	☐	☐	☐	☐	☐
Are you aware of the amount of income your community receives at the expense of other communities and vice versa?	☐	☐	☐	☐	☐
Are you aware of the patterns of spatial interdependence between communities in the Chicago metro area, including yours? (i.e., how dependent on other communities you are)	☐	☐	☐	☐	☐

READ A Joint venture is meant by both formal and informal agreements that are voluntarily established between local governments (for example between two or three cities or comparable government units) that are intended to encourage development and improve economic/fiscal conditions. These can take a variety of forms, such as land development planning, infrastructure development, affordable housing, interlocal agreements for services, worker training program, marketing programs, or any other.

HAVE YOUR AGENCY OR COMMUNITY ESTABLISHED A JOINT VENTURE? ☐YES ☐NO

If the answer is 'YES', please refer to Survey 1.

If the answer is 'NO', please refer to Survey 2.

SURVEY 1

PART I **1.** Please, check the municipalities/communities that your local government has relied or collaborated with in the last 2 years. If you select Chicago City, please check (next page) the communities (if any specific) that you have collaborated with.

☐ Addison	☐ Diamond	☐ Indian Head Park	☐ New Lenox	☐ Sandwich
☐ Algonquin	☐ Dixmoor	☐ Inverness	☐ Newark	☐ Sauk Village
☐ Alsip	☐ Dolton	☐ Island Lake	☐ Niles	☐ Schaumburg
☐ Antioch	☐ Downers Grove	☐ Itasca	☐ Norridge	☐ Schiller Park
☐ Arlington Heights	☐ East Dundee	☐ Johnsburg	☐ North Aurora	☐ Shorewood
☐ Aurora	☐ East Hazel Crest	☐ Joliet	☐ North Barrington	☐ Skokie
☐ Bannockburn	☐ Elburn	☐ Justice	☐ North Chicago	☐ Sleepy Hollow
☐ Barrington	☐ Elgin	☐ Kaneville	☐ North Riverside	☐ South Barrington
☐ Barrington Hills	☐ Elk Grove Village	☐ Kenilworth	☐ Northbrook	☐ South Chicago Heights
☐ Bartlett	☐ Elmhurst	☐ Kildeer	☐ Northfield	☐ South Elgin
☐ Batavia	☐ Elmwood Park	☐ La Grange	☐ Northlake	☐ South Holland
☐ Beach Park	☐ Elwood	☐ La Grange Park	☐ Oak Brook	☐ Spring Grove
☐ Bedford Park	☐ Evanston	☐ Lake Barrington	☐ Oak Forest	☐ St. Charles
☐ Beecher	☐ Evergreen Park	☐ Lake Bluff	☐ Oak Lawn	☐ Steger
☐ Bellwood	☐ Flossmoor	☐ Lake Forest	☐ Oak Park	☐ Stickney
☐ Bensenville	☐ Ford Heights	☐ Lake in the Hills	☐ Oakbrook Terrace	☐ Stone Park
☐ Berkeley	☐ Forest Park	☐ Lake Villa	☐ Oakwood Hills	☐ Streamwood
☐ Berwyn	☐ Forest View	☐ Lake Zurich	☐ Old Mill Creek	☐ Sugar Grove
☐ Big Rock	☐ Fox Lake	☐ Lakemoor	☐ Olympia Fields	☐ Summit
☐ Bloomingdale	☐ Fox River Grove	☐ Lakewood	☐ Orland Hills	☐ Symerton
☐ Blue Island	☐ Frankfort	☐ Lansing	☐ Orland Park	☐ Third Lake
☐ Bolingbrook	☐ Franklin Park	☐ Lemont	☐ Oswego	☐ Thornton
☐ Braceville	☐ Geneva	☐ Libertyville	☐ Palatine	☐ Tinley Park
☐ Braidwood	☐ Gilberts	☐ Lily Lake	☐ Palos Heights	☐ Tower Lakes
☐ Bridgeview	☐ Glen Ellyn	☐ Lincolnshire	☐ Palos Hills	☐ Trout Valley
☐ Broadview	☐ Glencoe	☐ Lincolnwood	☐ Palos Park	☐ Union
☐ Brookfield	☐ Glendale Heights	☐ Lindenhurst	☐ Park City	☐ University Park
☐ Buffalo Grove	☐ Glenview	☐ Lisbon	☐ Park Forest	☐ Vernon Hills
☐ Bull Valley	☐ Glenwood	☐ Lisle	☐ Park Ridge	☐ Villa Park
☐ Burbank	☐ Godley	☐ Lockport	☐ Peotone	☐ Virgil
☐ Burlington	☐ Golf	☐ Lombard	☐ Phoenix	☐ Volo
☐ Burnham	☐ Grayslake	☐ Long Grove	☐ Pingree Grove	☐ Wadsworth
☐ Burr Ridge	☐ Green Oaks	☐ Lynwood	☐ Plainfield	☐ Warrenville
☐ Calumet City	☐ Greenwood	☐ Lyons	☐ Plano	☐ Wauconda
☐ Calumet Park	☐ Gurnee	☐ Manhattan	☐ Plattville	☐ Waukegan
☐ Campton Hills	☐ Hainesville	☐ Maple Park	☐ Port Barrington	☐ Wayne
☐ Carol Stream	☐ Hampshire	☐ Marengo	☐ Posen	☐ West Chicago
☐ Carpentersville	☐ Hanover Park	☐ Markham	☐ Prairie Grove	☐ West Dundee
☐ Cary	☐ Harvard	☐ Matteson	☐ Prospect Heights	☐ Westchester
☐ Channahon	☐ Harvey	☐ Maywood	☐ Richmond	☐ Western Springs
☐ Chicago City	☐ Harwood Heights	☐ McCook	☐ Richton Park	☐ Westmont
☐ Edgewater	☐ Hawthorn Woods	☐ McCullom Lake	☐ Ringwood	☐ Wheaton
☐ Chicago Heights	☐ Hazel Crest	☐ McHenry	☐ River Forest	☐ Wheeling
☐ Chicago Ridge	☐ Hebron	☐ Melrose Park	☐ River Grove	☐ Willow Springs
☐ Cicero	☐ Hickory Hills	☐ Merrionette Park	☐ Riverdale	☐ Willowbrook
☐ Clarendon Hills	☐ Highland Park	☐ Mettawa	☐ Riverside	☐ Wilmette
☐ Coal City	☐ Highwood	☐ Midlothian	☐ Riverwoods	☐ Wilmington
☐ Country Club Hills	☐ Hillside	☐ Millbrook	☐ Robbins	☐ Winfield
☐ Countryside	☐ Hinsdale	☐ Millington	☐ Rockdale	☐ Winnetka
☐ Crest Hill	☐ Hodgkins	☐ Minooka	☐ Rolling Meadows	☐ Winthrop Harbor
☐ Crestwood	☐ Hoffman Estates	☐ Mokena	☐ Romeoville	☐ Wonder Lake
☐ Crete	☐ Holiday Hills	☐ Monee	☐ Roselle	☐ Wood Dale
☐ Crystal Lake	☐ Homer Glen	☐ Montgomery	☐ Rosemont	☐ Woodridge
☐ Darien	☐ Hometown	☐ Morton Grove	☐ Round Lake	☐ Woodstock
☐ Deer Park	☐ Homewood	☐ Mount Prospect	☐ Round Lake Beach	☐ Worth
☐ Deerfield	☐ Huntley	☐ Mundelein	☐ Round Lake Heights	☐ Yorkville
☐ Des Plaines	☐ Indian Creek	☐ Naperville	☐ Round Lake Park	☐ Zion

CITY OF CHICAGO COMMUNITIES

☐ Rogers Park	☐ Dunning	☐ Grand Boulevard	☐ Kenwood	☐ McKinley Park
☐ West Ridge	☐ Montclare	☐ Woodlawn	☐ Washington Park	☐ Bridgeport
☐ Uptown	☐ Belmont Cragin	☐ South Shore	☐ Hyde Park	☐ New City
☐ Lincoln Square	☐ Hermosa	☐ Chatham	☐ Archer Heights	☐ West Elsdon
☐ North Center	☐ Avondale	☐ Avalon Park	☐ Beverly	☐ Gage Park
☐ Lake View	☐ Logan Square	☐ South Chicago	☐ Washington Heights	☐ Clearing
☐ Lincoln Park	☐ Humboldt Park	☐ Burnside	☐ Mount Greenwood	☐ West Lawn
☐ Near North Side	☐ West Town	☐ Calumet Heights	☐ Morgan Park	☐ Chicago Lawn
☐ Edison Park	☐ Austin	☐ Roseland	☐ O'Hare	☐ West Englewood
☐ Norwood Park	☐ West Garfield Park	☐ Pullman	☐ Edgewater	☐ Englewood
☐ Jefferson Park	☐ Loop	☐ South Deering	☐ South Lawndale	☐ Greater Grand Crossing
☐ Forest Glen	☐ Near South Side	☐ East Side	☐ Lower West Side	
☐ North Park	☐ Armour Square	☐ West Pullman	☐ East Garfield Park	☐ Ashburn
☐ Albany Park	☐ Douglas	☐ Riverdale	☐ Near West Side	☐ Auburn Gresham
☐ Portage Park	☐ Oakland	☐ Hegewisch	☐ North Lawndale	☐ Brighton Park
☐ Irving Park	☐ Fuller Park	☐ Garfield Ridge		

PART II In this section, please write in the top three government or non-government organizations that you have relied on the most when carrying-out your city's overall economic development activities during the past year. Consider the full range of organizations, including local, county, state and federal government agencies, and regional agencies, non-profit organizations and business.

Organization 1	**Organization 2**	**Organization 3**
(Name: Please be as specific as possible)	*(Name: Please be as specific as possible)*	*(Name: Please be as specific as possible)*

For the following questions, please use the following scale:

Not at All	A Little	Somewhat	Quite a Bit	Very Much
1	2	3	4	5

2. Concerning the JOINT VENTURE your community has most recently established, to what extent your community relies on these organizations to:

	Organization 1	**Organization 2**	**Organization 3**
Discuss the monetary costs of the joint effort ……	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Develop a shared policy goal among the cities ……..	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Negotiate the benefits of the agreement ……	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Monitor inputs and ouputs of the joint venture …….	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Enforce the joint venture ……..	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

3. Concerning your community's OVERALL economic development activities, to what extent does your community rely on these organizations to:

	Organization 1	**Organization 2**	**Organization 3**
Provide policy expertise and technical assistance ……..	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Facilitate policy setting and implementation ……..	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
(e.g. distribute tasks, coordinate)			
Minimize the risks of starting new ventures ……..	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Communicate with other cities in the region ……	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

Provide financial resources ……....

PART III Now, we have questions on the joint venture(s) your community has established or is in the process of establishing.

REMINDER: A Joint venture is meant by both formal and informal agreements that are voluntarily established between local governments (for example between two or three cities or comparable government units) that are intended to encourage development and improve economic/fiscal conditions. These can take a variety of forms, such as land development planning, infrastructure development, affordable housing, interlocal agreements for services, worker training program, marketing programs, or any other.

3. Please check each policy listed below that your community uses to encourage development (*check all that apply*)?	**4.** Which of the following policies is the focus of the most recent joint venture your community has established (check all that apply)?	**5.** For the policies checked under question 2, to what extent are the investments that apply to the joint venture difficult or easy to adapt to other projects, services of activities? Very Easily … Very Difficult					**6.** To what extent is it easy or difficult to measure the inputs and outputs, and monitor the costs, benefits and outcomes of the joint venture policies checked under question 2? Very Easily … Very Difficult				
		1	2	3	4	5	1	2	3	4	5
Land & Infrastructure											
Land acquisition and assembly ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Land use Planning for industry ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Recreation amenity development ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Roadway infrastructure expansion ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Sale of land ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Site development ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Solid waste collection ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Improved/expanded parking ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Inventory of developable land ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Utility management ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Water distribution ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Business-Community Relations											
Business liaison committees ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Business linkage program ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Developing industry cluster strategy ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Export assistance program ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Marketing brochures ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Purchase advertisements ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Regional promotion activities ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Solicit foreign business ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Special events planning ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Industrial/commrcl. site promotion ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Trade shows ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Visits to prospective firms ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Community & Regional Resources											
Affordable housing construction ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Entrepreneurship training ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Historic/cultural development ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Inspection/code enforcement ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Job training for workforce ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Job linkage program for residents ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Leadership development ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Lobbying ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Non-profit organization development ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Public health programs ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Rehabilitation of buildings ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Revenue sharing ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Tourism development ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Financial Incentives											
Tax abatements to businesses ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Low interest loans to businesses ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
OTHER: _____ ☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

PART IV **We now have some questions on the relations between communities that are part of the joint venture, and the reasons why your community has established or is establishing a joint venture.**

7. What are the names of the communities that are a part of the most recent joint venture?

Community #1 _____

Community #2 _____

Community #3 _____

Community #4 _____

Community #5 _____

8. Prior to this joint venture, had your community established other formal or informal agreements with these communities?

	Yes	No
Community #1	☐	☐
Community #2	☐	☐
Community #3	☐	☐
Community #4	☐	☐
Community #5	☐	☐

9. In the past 2 years, how often has your community communicated with other communities in the region to discuss economic development issues?

1-2 Times A Year	3-10 Times A Year	Monthly	Weekly	Daily
☐	☐	☐	☐	☐

10. While the joint venture was being established, what percentage of the discussion about the joint venture activities was devoted to:

	[<20%]	[20-40%]	[40-60%]	[60-80%]	[>80%]
Project costs	☐	☐	☐	☐	☐
Project benefits	☐	☐	☐	☐	☐
Rules that govern the joint venture	☐	☐	☐	☐	☐

11. How much money, if any, is contributed by your community for the joint venture? (approximate within last year)

$ _____

12. In general, why was this joint venture established? *(Check all that apply)*

☐ To improve your community's economic advantage
☐ To decrease service delivery costs
☐ Change in political climate
☐ To increase scale economies
☐ To secure resources that your city cannot otherwise obtain
☐ State/federal financial incentives
☐ External fiscal pressures *(e.g. restrictions on revenue raising)*
☐ To address the actions of other communities that are harmful to yours
☐ Third party agreed to oversee the agreement
☐ To attain public visibility, goodwill or prestige
☐ To implement problem solving activities
☐ Government management is improved

13. When was the joint venture established? *(Check only one box)*

☐ Currently being established
☐ Less than 2 years ago
☐ Between 2 and 5 years ago
☐ More than 5 years ago

14. How are the terms of the agreement specified? *(Check all that apply)*

☐ Explicitly verbalized and discussed over the phone
☐ Verbalized through face-to-face contact
☐ Written down in detail
☐ Legally binding or contractual documents

15. Is there a governing board?

☐ Yes
☐ No

PART VI These questions refer to intergovernmental relations and barriers to establishing joint ventures.

16. For the following statements, please check the box that best describes your perceptions of regional intergovernmental relations within the past 2 years:	Never	Rarely	Sometimes	Usually	Always
Local governmental officials in the Chicago metro area are committed to positive change for the entire region	☐	☐	☐	☐	☐
In the Chicago metro area, it is expected that local officials in one jurisdiction keep those in other jurisdictions informed of changes that may affect them	☐	☐	☐	☐	☐
Local governmental officials from different jurisdictions in this region fulfill promises and commitments they make to one another.	☐	☐	☐	☐	☐
Economic problems in the Chicago metro area are addressed jointly by local officials across the region.	☐	☐	☐	☐	☐
Local officials from various jurisdictions across this region frequently communicate face-to-face with one another and/or via phone calls or email	☐	☐	☐	☐	☐
In the Chicago metro area, local governmental officials from different jurisdictions trust one another.	☐	☐	☐	☐	☐
After receiving resources from other local governments, communities provide equal or more resources in return	☐	☐	☐	☐	☐

17. To what extent do the following act as a barrier to establishing joint ventures?		Rarely	Sometimes	Usually	Always
Difficulty dividing up benefits that result from an agreement	☐	☐	☐	☐	☐
Difficulty in formulating rules that govern the agreement	☐	☐	☐	☐	☐
Lack of agreement among communities on development goals	☐	☐	☐	☐	☐
Lack of agreement on the ways work/services are to be provided	☐	☐	☐	☐	☐
Lack of agreement on how inputs and outputs will be monitored	☐	☐	☐	☐	☐
Potential that some communities will not uphold the agreement.	☐	☐	☐	☐	☐

18. To what extent does collaboration translates into better outcomes and capacity and consensus building in the local economic development process for your community?	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Institutional collective action among communities of the Chicago metro area makes our communities and the region itself stronger.	☐	☐	☐	☐	☐
My community has benefited from economic development cooperation engagement with other communities.	☐	☐	☐	☐	☐
Experimentation, learning, change and consensus building is easier through establishing a cooperative agreement than otherwise.	☐	☐	☐	☐	☐
Rich social networks generated by institutional collective action represent a great resource of institutional capital through which new initiatives are taken more rapidly and legitimately.	☐	☐	☐	☐	☐
Collaborative approaches in local economic development initiatives in your community achieve more effective and durable outcomes.	☐	☐	☐	☐	☐
Based on actual facts and tangible outcomes, it is better to pursue economic development in a cooperative environment than under a competitive advantage environment.	☐	☐	☐	☐	☐

PART VII Demographic Profile

19. Sex:

- ☐ Male
- ☐ Female

20. Age:

- ☐ ≤ 21
- ☐ 22 to 34
- ☐ 35 to 44
- ☐ 45 to 54
- ☐ 55 to 64
- ☐ ≥ 65
- ☐ Decline

21. Ethnicity:

- ☐ Hispanic or Latino
- ☐ Not Hispanic or Latino

22. Race:

- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Native Hawaiian or other Pacific Islander
- ☐ White

23. Did you grow up in the Chicago metro area?

☐ Yes ☐ No

24. Education (Specialization)

- ☐ No Diploma / Less than High School
- ☐ High School/GED
- ☐ Some College
- ☐ Associate Degree (_____)
- ☐ Bachelor Degree (_____)
- ☐ Master Degree (_____)
- ☐ Ph.D. (_____)
- ☐ Professional Degree (_____)

25. Did you purse your degree in the Chicago metro area?

☐ Yes ☐ No

Brief Agency Profile

26. Is the leading economic development agency in your community/municipality a public-private partnership?

☐ Yes ☐ No

27. Is the leading development official or manager a full-time director?

☐ Yes ☐ No

28. Do you have an updated strategic development plan in force (less than 2 years old)?

☐ Yes ☐ No

29. What are the most popular policies in your community/municipality?

☐ Demand-side policies ☐ Supply-side policies

30. What is the current development budget of your community/municipality? _____

31. Do you expect an increase in the development budget in the next years?

☐ Yes ☐ No

APPENDIX C

SURVEY INSTRUMENT FOR COMMUNITIES WITHOUT A JOINT VENTURE

PART 1

In this first section there are some questions on the barriers to establishing joint ventures with other communities, intergovernmental relations in your region, and the type of development policies that your community has adopted. A joint venture is meant by both formal and informal agreements that are voluntarily established between local governments (for example between two or three cities or comparable government units) that are intended to encourage development and/or improve economic and fiscal conditions. These can take a variety of forms, such as land development planning, infrastructure development, affordable housing, or interlocal agreements for service delivery.

1. What are the reasons for not establishing a joint venture with another community? *(Check all that apply)*

- ☐ There is no need to secure additional resources
- ☐ Your community has limited resources to provide to other communities
- ☐ Coordination with other communities is difficult
- ☐ Organizations not affiliated with your community take responsobility for those development efforts
- ☐ Your community can adequetly undertake development efforts by itself
- ☐ The geographic distance between communities is too great
- ☐ OTHER: _____

2. Which of the following increase your community's interest in establishing a joint venture? *(Check all that apply)*

Governance

- ☐ City management is improved
- ☐ Relation is written down in detail
- ☐ Standard operating procedures are established Formal
- ☐ channels of decision making are followed
- ☐ Third party oversees the agreement

Resources

- ☐ External fiscal pressures (e.g. restrictions on revenue rising)
- ☐ Need to decrease costs of service delivery
- ☐ State/federal financial incentives tied to cooperation
- ☐ Scale economies are increased
- ☐ Resources are secured that your city cannot otherwise obtain
- ☐ City's economic advantage is improved

Local and Regional Interests

- ☐ Pressure from business group interests
- ☐ Harmful affects from other city actions are mitigated
- ☐ Environment is protected
- ☐ Change in political climate emphasizing more regional cooperation
- ☐ Public visibility, goodwill or prestige are obtained
- ☐ Problem solving activities are implemented

3. Which of the following is used by your community as a development policy? *(Check all that apply)*

Land & Infrastructure

- ☐ Land acquisition and assembly
- ☐ Land use planning for industry
- ☐ Recreation amenity development
- ☐ Roadway infrastructure expansion
- ☐ Sale of land
- ☐ Site development
- ☐ Solid waste collection
- ☐ Improved/expanded parking
- ☐ Inventory of available sites
- ☐ Utility management
- ☐ Water distribution

Business-Community Relations

- ☐ Business liaison committees
- ☐ Business linkage program
- ☐ Developing industry cluster strategy
- ☐ Export assistance program
- ☐ Marketing brochures
- ☐ Purchase advertisments
- ☐ Regional promotion activities
- ☐ Solicit foreign business
- ☐ Special events planning
- ☐ Site promotion
- ☐ Trade shows
- ☐ Visits to prospective firms

Community & Regional Resources

- ☐ Affordable housing construction
- ☐ Entrepreneurship training
- ☐ Historic/cultural development Job
- ☐ training for workforce
- ☐ Job linkage program for residents
- ☐ Leadership development
- ☐ Lobbying
- ☐ Non-profit organization development
- ☐ Public health programs
- ☐ Rehabilitation of buildings
- ☐ Revenue sharing
- ☐ Tourism development

Incentives

- ☐ Tax abatement to businesses
- ☐ Low interest loans to businesses

	Not At All	A Little	Some-what	Quite A Bit	Very Much
5. For the following statements, please check the box that best describes your perceptions of intergovernmental relations in the immediate region:					
Local governments fulfill promises and commitments they make to one another	☐	☐	☐	☐	☐
Local governments carry out their responsibilities and obligations	☐	☐	☐	☐	☐
Intergovernmental relations are productive and generate benefits that all share	☐	☐	☐	☐	☐
Local government officials from different jurisdictions trust one another	☐	☐	☐	☐	☐
After receiving resources from other local governments, communities provide equal or more resources in return	☐	☐	☐	☐	☐
There is competition and conflict between governments	☐	☐	☐	☐	☐
Local governments are generally cooperative	☐	☐	☐	☐	☐
6. To what extent do the following act as a barrier to establishing joint ventures?					
Difficulty dividing up benefits that result from the agreement	☐	☐	☐	☐	☐
Complexity in formulating rules that govern the agreement	☐	☐	☐	☐	☐
Uncertainty that the joint agreement will be successful	☐	☐	☐	☐	☐
Unsure of the future economic conditions of other communities	☐	☐	☐	☐	☐
Lack of agreement on development goals	☐	☐	☐	☐	☐
Lack of agreement on the ways work/services are to be provided	☐	☐	☐	☐	☐
Lack of agreement on how inputs and outputs will be monitored	☐	☐	☐	☐	☐
Potential that some communities will not uphold agreement	☐	☐	☐	☐	☐
Lack of trust in communities to follow through on their commitments	☐	☐	☐	☐	☐

PART II In this section, please write in the top three government or non-government organizations that you have relied on the most when carrying-out your city's overall economic development activities during the past year. Consider the full range of organizations, including local, county, state and federal government agencies, and regional agencies, non-profit organizations and business.

Organization 1 *(Name: Please be as specific as possible)*	**Organization 2** *(Name: Please be as specific as possible)*	**Organization 3** *(Name: Please be as specific as possible)*

For the following questions, please use the following scale:

Not at All	A Little	Somewhat	Quite a Bit	Very Much
1	2	3	4	5

7. Concerning your community's <u>OVERALL</u> economic development activities, to what extent does your community rely on these organizations to:

	Organization 1					**Organization 2**					**Organization 3**				
Provide policy expertise and technical assistance ……..	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Facilitate policy setting and implementation …….. *(e.g. distribute tasks, coordinate)*	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Minimize the risks of starting new ventures ……..	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Communicate with other cities in the region ……	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Provide financial resources ……	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

PART III Demographic Profile

8. Sex:

- ☐ Male
- ☐ Female

9. Age:

- ☐ ≤ 21
- ☐ 22 to 34
- ☐ 35 to 44
- ☐ 45 to 54
- ☐ 55 to 64
- ☐ ≥ 65
- ☐ Decline

10. Ethnicity:

- ☐ Hispanic or Latino
- ☐ Not Hispanic or Latino

11. Race:

- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Native Hawaiian or other Pacific Islander
- ☐ White

12. Did you grow up in the Chicago metro area?

☐ Yes ☐ No

13. Education (Specialization)

- ☐ No Diploma / Less than High School
- ☐ High School/GED
- ☐ Some College
- ☐ Associate Degree (_____)
- ☐ Bachelor Degree (_____)
- ☐ Master Degree (_____)
- ☐ Ph.D. (_____)
- ☐ Professional Degree (_____)

14. Did you purse your degree in the Chicago metro area?

☐ Yes ☐ No

Brief Agency Profile

15. Is the leading economic development agency in your community/municipality a public-private partnership?

☐ Yes ☐ No

16. Is the leading development official or manager a full-time director?

☐ Yes ☐ No

17. Do you have an updated strategic development plan in force (less than 2 years old)?

☐ Yes ☐ No

18. What are the most popular policies in your community/municipality?

☐ Demand-side policies ☐ Supply-side policies

19. What is the current development budget of your community/municipality? _____

20. Do you expect an increase in the development budget in the next years?

☐ Yes ☐ No